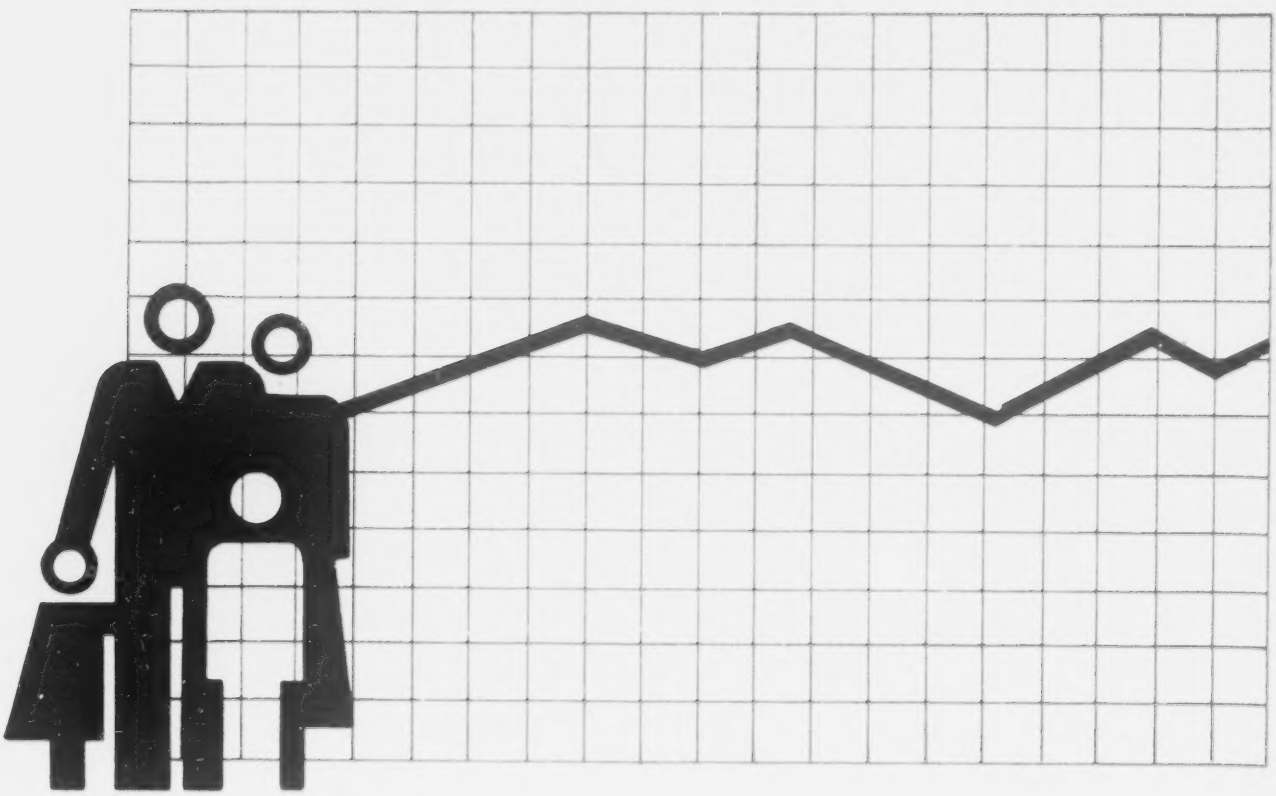
NORTH DAKOTA VITAL STATISTICS REPORT

1986



North Dakota State Department of Health and Consolidated Laboratories

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Introduction

The 1986 edition of the North Dakota Vital Statistics Report is a statistical summary of births, deaths, fetal deaths, marriages, divorces and annulments, and induced terminations of pregnancy. The summary's major purpose is to present information which can be utilized as a basis for health policy and planning decisions and as a primer for epidemiologic investigation.

Although a majority of the information contained in this report pertain to events occurring in 1986, some data for prior years has been included to illustrate trends.

Data for this summary are gleaned from the certificates of live birth, death, fetal death, induced termination of pregnancy, marriage and divorce, and annulment.

Any comments or suggestions concerning the content or format for this report are welcome, and any subsequent data needs should be directed to the Administrative Services Section, North Dakota State Department of Health, Second Floor, Judicial Wing, State Capitol, Bismarck, North Dakota 58505, (701) 224-2392.

Definitions, Rates, and Ratios

Definitions

BIRTH WEIGHT - Weight of infant or fetus at time of delivery (normally recorded in pounds and ounces and/or grams).

FETAL DEATH - Death prior to the complete expulsion or extraction from its mother of a product of conception, having passed through at least the 20th week of gestation; the fetus shows no signs of life such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles.

GESTATIONAL PERIOD - Number of weeks elapsed between the first day of the last menstrual period and date of delivery.

HEBDOMADAL DEATH - Death occurring to an individual less than 7 days of age.

ILLEGITIMATE BIRTHS - Birth occurring to a mother who is not married at the time of conception, at the time of birth, or at any time between conception and birth.

INDUCED TERMINATION OF PREGNANCY - The termination of human pregnancy with an intention other than to produce a live birth or to remove a dead embryo or fetus.

INFANT DEATH - Death occurring to an individual less than 1 year of age.

LEADING CAUSES OF DEATH - Deaths are grouped into categories dependent upon the underlying cause of death. Ranks are assigned by organizing these categories according to the number of deaths in each category from most frequent to least.

LIVE BIRTH - The complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy, which, after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles.

LOW WEIGHT BIRTH - Birth wherein the birth weight is equivalent to 2,500 grams or less (approximately 5 lbs., 8 oz.).

MATERNAL DEATHS - Those deaths wherein the physician has designated a maternal condition as the underlying cause of death.

MEAN - The average of a set of values, equal to the sum of the values divided by the number of values.

MEDIAN - The central value of a distribution of values wherein the same percentage of observations are above this point as are below.

NEONATAL DEATH - Death occurring to individuals less than 28 days of age.

OCCURRENCE - Place where the event actually occurred.

PERINATAL DEATH - Fetal death and deaths less than 28 days of age.

PERINATE - Fetus or newborn during the perinatal period (from the end of the 20th week of gestation to the 28th day after birth).

RACE - Race for mother, father, or decedent is as stated on particular certificate. Race of child is determined from the race of the parents.

RESIDENCE - Usual place of residence for person to whom event occurred. For births and fetal deaths residence is defined as the mother's usual place of residence.

TOTAL BIRTHS - Live births and fetal deaths.

UNDERLYING CAUSE OF DEATH - That condition giving rise to the chain of events leading to death.

Rates and Ratios

CAUSE-SPECIFIC DEATH RATE - Number of deaths due to a specific cause divided by the total resident population X 100,000.

CRUDE BIRTH RATE - Number of resident live births divided by the total resident population X 1,000.

CRUDE DEATH RATE - Number of resident deaths divided by the total resident population X 1,000.

DIVORCE RATE - Number of divorces and annulments divided by the total resident population X 1,000.

FETAL DEATH RATE - Number of resident fetal deaths divided by the total resident live births and resident fetal deaths X 1,000.

FETAL DEATH RATIO - Number of resident fetal deaths divided by the total resident live births X 1,000.

ILLEGITIMACY RATIO - Number of resident illegitimate live births divided by total resident live births X 1,000.

INFANT MORTALITY RATE - Number of infant deaths divided by the total resident live births X 1,000.

LOW WEIGHT BIRTH RATIO - Number of low weight births divided by the total resident live births X 1,000.

MARRIAGE RATE - Number of marriages divided by the total resident population X 1,000.

MATERNAL DEATH RATE - Number of maternal deaths divided by the total resident live births X 10,000

NEONATAL DEATH RATE - Number of neonatal deaths divided by the total resident live births X 1,000.

NO PRENATAL CARE RATIO - Number of live births to mothers with no prenatal care divided by the total resident live births X 1,000.

PERINATAL DEATH RATE - Number of perinatal deaths divided by the total resident live births and the total resident fetal deaths X 1,000.

Reliability of Rates

Precautions should be taken in drawing specific inferences from comparisons of rates for different geographic areas or different periods of time. Rates based on a small number of events or for a small geographic area tend to exhibit considerable variation from time period to time period or place to place. Excessive variation in rates not only negates their utility as estimators of the probability of an event occurring, but also their usefulness for comparative purposes. In addition, the reader should recognize the limitations of using unadjusted rates in attempting to attribute rate differences to particular factors. For example, the reader should not attempt to state that there was a significant difference in rates for two geographic areas for diseases of the heart without first adjusting the rates to negate the effects of differing age distributions in the two areas. Many times there are simply not sufficient data available to adequately adjust rates for all possible compounding factors. For this reason, the reader should exercise diligence and caution while attempting to draw substantive conclusions when comparing vital statistics rates.

Qualifications and Limitations of Data and Calculations

COMPARABILITY IN CAUSE-OF-DEATH STATISTICS

The reader must bear in mind two major limitations in interpreting changes in cause-of-death statistics. Changes in nomenclature and the classification scheme (The International Classification of Diseases) and changes in diagnostic practices may seriously affect the comparability of such statistics over time. The International Classification of Diseases is modified approximately once every ten years to reflect changing medical opinion and practice. More accuracy may be obtained when comparing cause-of-death certificates which are coded via one revision of the International Classification of Diseases and utilizing the coding practices and procedures in effect at that time.

In order to compare cause-of-death statistics from one revision to the next it is necessary to apply a ratio of comparability. Such ratios are developed by comparing the number of deaths assigned to a certain condition or group of conditions under one revision to the number assigned under another revision of the International Classification of Diseases.

Natality:
An Overview 1986

Total Resident Live Births	10,824
Crude Birth Rate	15.9
Median Live Birth Weight (Grams)	3,470
Low Weight Live Births	528
Low Weight Birth Ratio	48.8

Live Births

Between 1960 and 1986 the number of North Dakota resident live births varied considerably (Figure 1.1 and Table 1.1). The smallest number of resident live births recorded since 1960 was 9,738 in 1973, while the largest number occurred in 1960, a year in which 16,690 resident live births were reported. During the same time period crude birth rates also varied considerably (Figure 1.2 and Table 1.1). The largest crude birth rate was experienced in 1960 (26.4), while the smallest corresponding rate was reported in 1973 (15.4).

Figure 1.1
Resident Live Births
North Dakota, 1960-1986

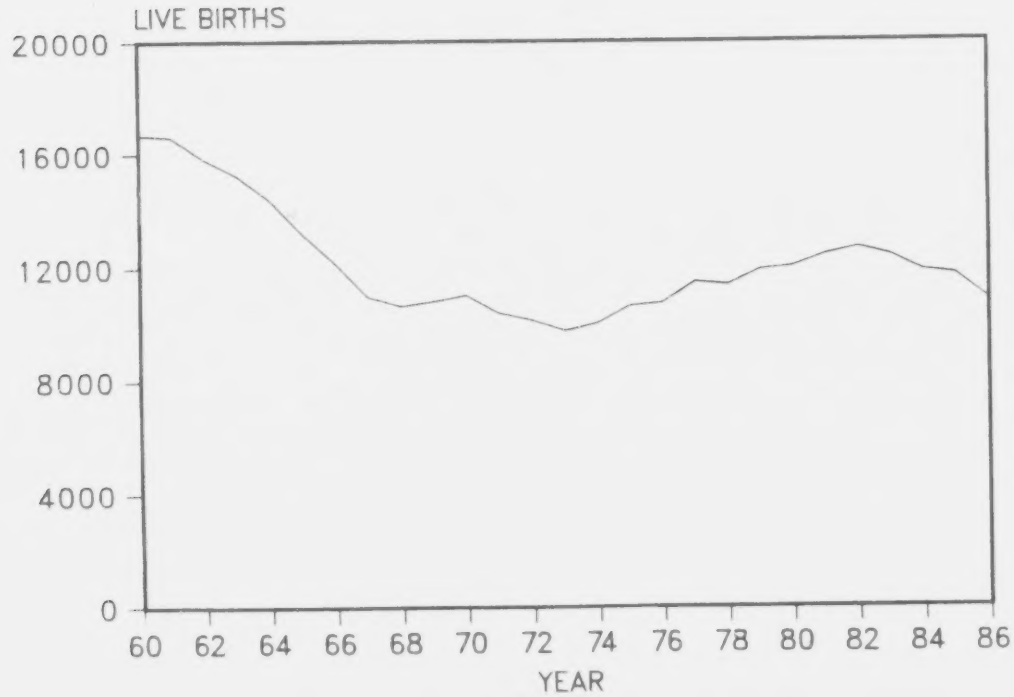


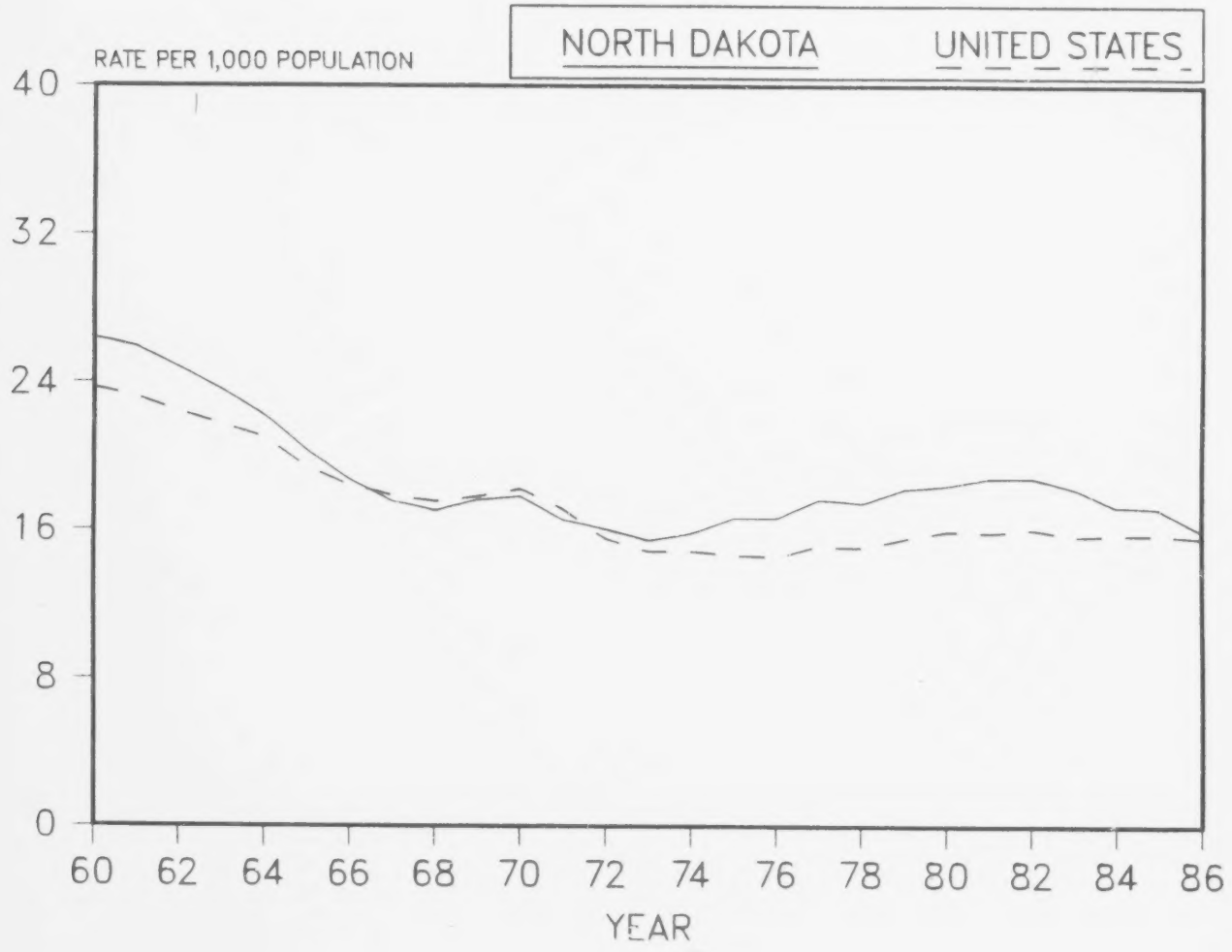
Table 1.1
Resident Live Births and Crude Birth Rates
North Dakota and United States
1960-1986

Year	United States		North Dakota	
	Live Births	Crude Birth Rate	Live Births	Crude Birth Rate
1960	4,257,850	23.7	16,690	26.4
1961	4,268,326	23.2	16,615	25.9
1962	4,167,362	22.4	15,842	24.8
1963	4,098,020	21.7	15,257	23.6
1964	4,027,490	21.0	14,405	22.2
1965	3,760,358	19.4	13,198	20.3
1966	3,606,274	18.4	12,159	18.7
1967	3,520,959	17.8	10,962	17.5
1968	3,501,564	17.5	10,631	17.0
1969	3,600,206	17.8	10,798	17.6
1970	3,731,386	18.2	11,004	17.8
1971	3,555,970	17.1	10,361	16.5
1972	3,258,411	15.5	10,115	16.0
1973	3,136,965	14.8	9,738	15.4
1974	3,159,958	14.8	10,010	15.8
1975	3,144,198	14.6	10,624	16.6
1976	3,167,788	14.5	10,724	16.6
1977	3,326,632	15.1	11,450	17.6
1978	3,333,279	15.0	11,347	17.4
1979	3,494,398	15.5	11,883	18.2
1980	3,612,258	15.9	11,995	18.4
1981	3,629,238	15.8	12,407	18.8
1982	3,680,537	15.9	12,655	18.8
1983	3,638,933	15.6	12,380	18.2
1984	3,669,141	15.7	11,833	17.2
1985	3,749,000(1)	15.7	11,697	17.1
1986	3,731,000(1)	15.5	10,824	15.9

(1) U.S. Estimate

Generally, state and national live birth frequency and crude birth rate patterns have been similar. These patterns showed a steady decline from 1960 through 1968, slight fluctuation from 1969 to 1973, and steady increase from 1973 through 1982. However, in 1983 through 1986, both North Dakota resident live birth frequencies and crude birth rates declined, a reversal of the 1973-1982 pattern of increase. Generally, since 1960, North Dakota's crude birth rates were higher than corresponding national rates.

Figure 1.2
Resident Live Birth Rates
North Dakota and United States
1960-1986



Racial Composition

During the 1976-1986 time period the racial composition of North Dakota resident live births changed slightly. White births declined from 91.6 percent to 88.9 percent of total live births, while non-white resident live births rose from 8.4 percent to 11.1 percent (Table 1.2).

Table 1.2
Resident Live Births by Race of Infant
North Dakota, 1976-1986

Year	Total Live Births		White Births		Native American Births		All Others	
	Number	Percent of All Births	Number	Percent of All Births	Number	Percent of All Births	Number	Percent of All Births
1976	10,724	100.0	9,827	91.6	653	6.1	244	2.3
1977	11,450	100.0	10,519	91.9	646	5.6	285	2.5
1978	11,347	100.0	10,435	92.0	745	6.6	167	1.5
1979	11,883	100.0	10,938	92.0	766	6.4	179	1.5
1980	11,995	100.0	10,935	91.2	864	7.2	196	1.6
1981	12,407	100.0	11,230	90.5	973	7.8	204	1.6
1982	12,655	100.0	11,395	90.0	1,034	8.2	226	1.8
1983	12,380	100.0	11,129	89.9	1,023	8.3	228	1.8
1984	11,833	100.0	10,639	89.9	962	8.1	232	2.0
1985	11,697	100.0	10,441	89.3	1,013	8.7	243	2.1
1986	10,824	100.0	9,624	88.9	984	9.1	216	2.0

Age of Mother

In 1986, 38.2 percent of all resident live births were to mothers less than 25 years of age (Table 1.3) as compared with 52.3 percent reported in 1976. The median age for all mothers was 27, while the corresponding medians for white mothers and Native American mothers were 27 and 24, respectively (Table 1.3).

Table 1.3
Resident Live Births by Age of
Mother and Race of Infant
North Dakota, 1986

Age of Mother	Race of Infant							
	Total		White		Native American		Other Races	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Under 15 Years	11	0.1	5	0.1	5	0.5	1	0.5
15-19 Years	857	7.9	636	6.6	208	21.1	13	6.0
20-24 Years	3,263	30.1	2,862	29.7	344	35.0	57	26.4
25-29 Years	4,085	37.7	3,717	38.6	275	27.9	93	43.1
30-34 Years	2,031	18.8	1,893	19.7	96	9.8	42	19.4
35-39 Years	513	4.7	456	4.7	48	4.9	9	4.2
40-44 Years	60	0.6	51	0.5	8	0.8	1	0.5
45 Years and Over	4	0.0	4	0.0	--	--	--	--
Total	10,824	100.0	9,624	100.0	984	100.0	216	100.0
Median Age of Mother	27		27		24		27	

Prenatal Care

For the 10,824 live born infants in 1986, prenatal care was initiated most often in the first trimester of pregnancy. This accounted for 80.6 percent of all women having live births. The most common number of prenatal visits fell within the interval 10-14. Tables 1.4 and 1.5 indicate the trimester prenatal care began and the number of prenatal visits.

During 1986, 52 resident live births or 4.8 of every 1,000 live births occurred without the mother having any prenatal care (Tables 1.4 and 1.5).

Table 1.4
Resident Live Births by Trimester
Prenatal Care Began and Race of Mother
North Dakota, 1986

Trimester Prenatal Care Began	Race of Mother							
	All Races		White		Native American		Other Races	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
None	52	0.5	36	0.4	15	1.8	1	0.5
First	8,729	80.6	8,079	82.4	515	62.4	135	69.6
Second	1,619	15.0	1,366	13.9	211	25.6	42	21.6
Third	228	2.1	160	1.6	65	7.9	3	1.5
Not Stated	196	1.8	164	1.7	19	2.3	13	6.7
Total	10,824	100.0	9,805	100.0	825	100.0	194	100.0

Table 1.5
Resident Live Births by Number
of Prenatal Visits and Race of Mother
North Dakota, 1986

Number of Prenatal Visits	Race of Mother							
	All Races		White		Native American		Other Races	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
None	52	0.5	36	0.4	15	1.8	1	0.5
1-4	422	3.9	301	3.1	119	14.4	2	1.0
5-9	3,774	34.9	3,366	34.3	365	44.2	43	22.2
10-14	5,479	50.6	5,111	52.1	265	32.1	103	53.1
15-19	857	7.9	783	8.0	45	5.5	29	14.9
20+	141	1.3	124	1.3	12	1.5	5	2.6
Not Stated	99	0.9	84	0.9	4	0.5	11	5.7
Total	10,824	100.0	9,805	100.0	825	100.0	194	100.0

Table 1.6
Resident Live Births With No Prenatal Care
by Age and Race of Mother
North Dakota, 1986

Age of Mother	Race of Mother							
	Total		White		Native American		All Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Under 15 Years	--	--	--	--	--	--	--	--
15-19 Years	19	22.2	9	13.6	9	49.2	1	83.3
20-24 Years	16	4.9	12	4.1	4	14.1	--	--
25-29 Years	6	1.5	4	1.1	2	8.7	--	--
30-34 Years	7	3.4	7	3.7	--	--	--	--
35-39 Years	1	1.9	1	2.1	--	--	--	--
40-44 Years	3	50.0	3	60.0	--	--	--	--
45 Years and Over	--	--	--	--	--	--	--	--
Total	52	4.8	36	3.7	15	18.2	1	5.2

Birth Weight

In 1986 the median birth weight for all North Dakota resident live births was 3,470 grams or approximately 7 pounds, 10 ounces (Table 1.7). A subgroup of major importance when analyzing birth weights is the infant weighing 2,500 grams or less (approximately 5 pounds, 8 ounces) at birth. Such infants have historically experienced higher mortality rates in their first year than those born with greater birth weight. In 1986, 528 total live births were at or below 2,500 grams or approximately 49 of every 1,000 live births.

The proportion of low weight infants varies with the race and age of the mother and the amount of prenatal care she has received. Tables 1.8 and 1.9 present data on these three variables with respect to birth weight.

Table 1.7
Resident Live Births by
Birth Weight and Race of Infant
North Dakota, 1986

Weight (In Grams)	Total	Race of Infant		
		White	Native American	Other
0-500	10	9	1	--
501-1,000	28	25	3	--
1,001-1,250	22	19	3	--
1,251-1,500	29	26	2	1
1,501-1,750	40	35	4	1
1,751-2,000	51	45	5	1
2,001-2,250	113	99	13	1
2,251-2,500	235	198	29	8
2,501-2,750	394	340	36	18
2,751-3,000	907	791	95	21
3,001-3,500	3,816	3,420	311	85
3,501-4,000	3,656	3,272	331	53
4,001-4,500	1,252	1,119	114	19
4,501-5,000	244	204	33	7
5,001 and Over	26	22	4	0
Not Stated	1	0	0	1
Total	10,824	9,624	984	216
Median Weight	3,470	3,472	3,485	3,336

Table 1.8
Resident Low Weight[1] Live
Births and Low Birth Weight Ratios by
Age of Mother and Race of Infant
North Dakota, 1986

Age of Mother	Race of Infant							
	All Races		White		Native American		Other Races	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Under 15 Years	1	90.9	--	--	1	200.0	--	--
15-19 Years	56	65.3	44	69.2	12	57.7	--	--
20-24 Years	168	51.5	151	52.8	12	34.9	5	87.7
25-29 Years	186	45.5	160	43.0	22	80.0	4	43.0
30-34 Years	77	37.9	71	37.5	3	31.3	3	71.4
35-39 Years	36	70.2	26	57.0	10	208.3	--	--
40-44 Years	3	50.0	3	58.8	--	--	--	--
45 Years and Over	1	250.0	1	250.0	--	--	--	--
Total	528	48.8	456	47.4	60	61.0	12	55.6

(1) 2,500 Grams or Less

Table 1.9
Resident Low Weight[1] Live
Births and Low Birth Weight Ratios by
Prenatal Visits and Race of Mother
North Dakota, 1986

Number of Prenatal Visits	Race of Mother							
	All Races		White		Native American		Other Races	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
None	10	192.3	9	250.0	1	66.7	--	--
1-4	54	128.0	45	149.5	9	75.6	--	--
5-9	283	75.0	249	74.0	29	79.5	5	116.3
10-14	136	24.8	125	24.5	5	18.9	6	58.3
15-19	21	24.5	15	19.2	5	111.1	1	34.5
20+	9	63.8	4	32.3	5	416.7	--	--
Not Stated	15	--	15	--	--	--	--	--
Total	528	48.8	462	47.1	54	65.5	12	61.9

(1) 2,500 Grams or Less

Attendant at Birth

Data presented in Table 1.10 indicate nearly 98 percent of the resident live births were attended by a physician, either a M.D. or D.O. In addition, there were 131 live births attended by midwives and 71 live births attended to by registered nurses.

Table 1.10
Resident Live Births by Type of Attendant
North Dakota, 1986

Attendant	Number	Percent
Physician, M.D.	10,560	97.6
Physician, D.O.	28	0.3
Registered Nurse	71	0.7
Parent	24	0.2
Other	5	0.0
Midwife	131	1.2
Nurse Practitioner	4	0.0
Not Stated	1	0.0
Total	10,824	100.0

Illegitimate Live Births

Between 1960 and 1986 the number of North Dakota resident illegitimate live births increased substantially (Figure 1.3 and Table 1.11). The smallest number of resident illegitimate live births recorded since 1960 was 423 in 1961, while the largest corresponding frequency was 1,393 in 1986. During the same time period, illegitimacy ratios, which expresses illegitimate live births per 1,000 total live births, has also increased substantially (Figure 1.4 and Table 1.11). The smallest ratio was 25.5 experienced in 1961, while the largest corresponding figure was 128.7 reported in 1986.

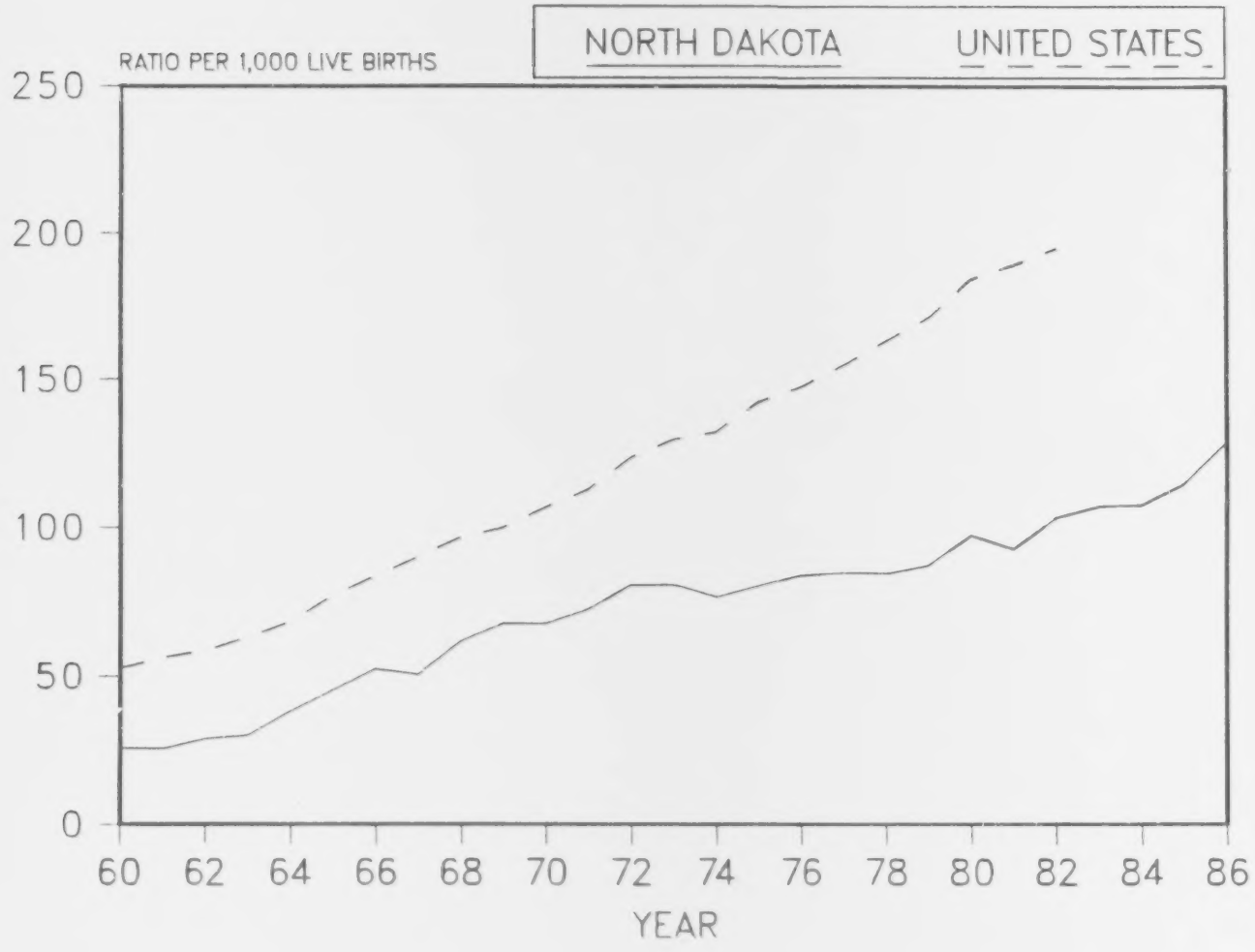
Figure 1.3
Resident Illegitimate Live Births
North Dakota, 1960-1986

Table 1.11
Resident Illegitimate Live Births and
Illegitimacy Birth Ratios
North Dakota and United States
1960-1986

Year	United States		North Dakota	
	Illegitimate Births	Illegitimacy Ratio	Illegitimate Births	Illegitimacy Ratio
1960	224,300	52.7	427	25.6
1961	240,200	56.3	423	25.5
1962	245,100	58.8	460	29.0
1963	259,400	63.3	460	30.2
1964	275,700	68.5	552	38.3
1965	291,200	77.4	601	45.5
1966	302,400	83.9	641	52.7
1967	318,100	90.3	556	50.7
1968	339,200	96.9	659	62.0
1969	360,800	100.2	735	68.1
1970	398,700	106.9	748	68.0
1971	401,400	112.9	754	72.8
1972	403,200	123.7	819	81.0
1973	407,300	129.8	790	81.1
1974	418,100	132.3	768	76.7
1975	447,900	142.5	858	80.7
1976	468,100	147.8	904	84.3
1977	515,700	155.0	974	85.1
1978	543,900	163.2	961	84.7
1979	597,800	171.1	1,040	87.5
1980	665,747	184.3	1,168	97.4
1981	686,605	189.2	1,150	92.7
1982	715,227	194.9	1,308	103.4
1983	--(1)	--	1,328	107.3
1984	--(1)	--	1,274	107.7
1985	--(1)	--	1,342	114.7
1986	--(1)	--	1,393	128.7

(1) Not Available

Figure 1.4
Resident Illegitimate Birth Ratios
North Dakota and United States
1960-1986



Generally, state and national illegitimate frequency and illegitimate ratio patterns have been similar, that is, substantially increasing throughout the 1960-1986 time period. Although both have trended upward, North Dakota illegitimacy ratios have been much lower than corresponding national ratios.

Table 1.12
Resident Illegitimate Live Births
and Illegitimacy Ratio by Age of Mother
North Dakota, 1986

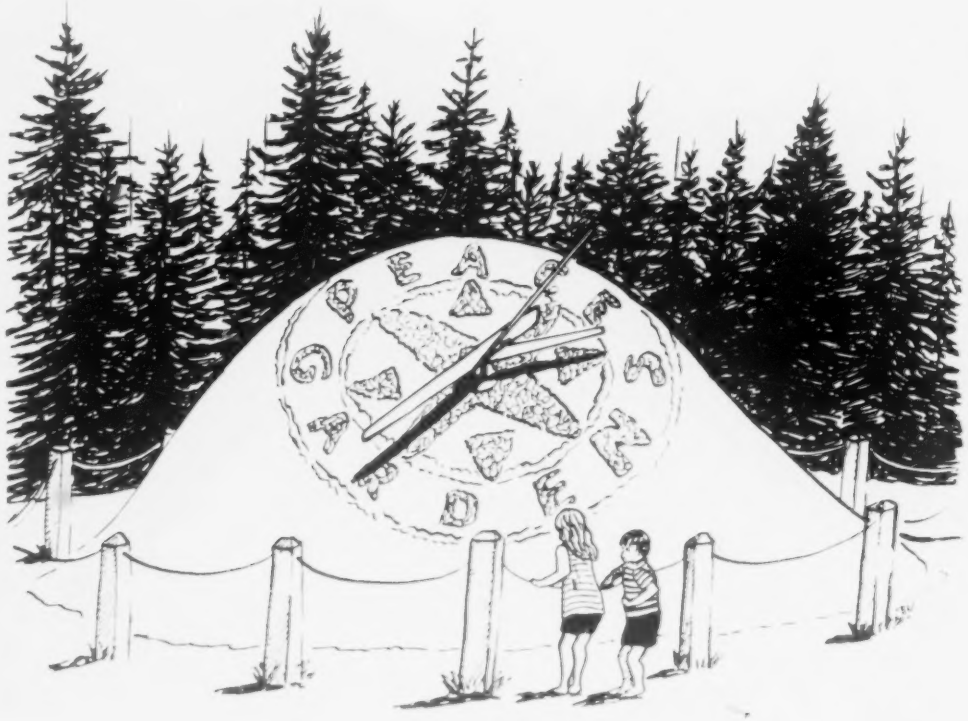
Age of Mother	Total Live Births	Illegitimate Births	Illegitimacy Ratio
Under 15 Years	11	11	1,000.0
15-19 Years	857	475	554.3
20-24 Years	3,263	519	159.1
25-29 Years	4,085	248	60.7
30-34 Years	2,031	98	48.3
35-39 Years	513	35	68.2
40-44 Years	60	7	116.7
45 Years and Over	4	0	0.0
Total	10,824	1,393	128.7

Congenital Anomalies

Congenital anomalies were reported in 165 of the 10,824 resident live births in 1986 (Table 1.13). This translates to a rate of 1,524.4 per 100,000 live births. "Other congenital anomalies of the limbs" was the most frequent reported occurring at a rate of 258.7 per 100,000 live births and comprising 17.0 percent of all anomalies mentioned. The frequency of reporting specific anomalies is affected by the reporting cycle. Many conditions may or may not be apparent at birth when the birth certificate is completed.

Table 1.13
Resident Congenital Anomalies and
Associated Rates by Types of Anomaly
North Dakota, 1986

Type of Anomaly	ICDA Code	Number of Conditions	Rate Per 100,000 Live Births
Anencephalus and Similar Anomalies	740	1	9.3
Spina Bifida	741	4	37.0
Other Congenital Anomalies of the Nervous System	742	5	46.2
Congenital Anomalies of the Eye	743	2	18.5
Congenital Anomalies of the Ear, Face, and Neck	744	5	46.2
Bulbus Cordis Anomalies and Anomalies of the Cardiac Septal Closure	745	1	9.3
Other Congenital Anomalies of the Heart	746	7	64.7
Other Congenital Anomalies of the Circulatory System	747	1	9.3
Congenital Anomalies of the Respiratory System	748	3	27.7
Cleft Palate and Cleft Lip	749	17	157.1
Other Congenital Anomalies of Upper Alimentary Tract	750	5	46.2
Other Congenital Anomalies of the Digestive System	751	5	46.2
Congenital Anomalies of the Genital Organs	752	16	147.8
Congenital Anomalies of the Urinary System	753	3	27.7
Certain Congenital Musculoskeletal Deformities	754	22	203.3
Other Congenital Anomalies of the Limbs	755	28	258.7
Other Congenital Musculoskeletal Anomalies	756	9	83.1
Congenital Anomalies of the Integument	757	10	92.4
Chromosomal Anomalies	758	11	101.6
Other and Unspecified Congenital Anomalies	759	10	92.4
Total		165	1,524.4


DEATH

Mortality:
An Overview 1986

Total Resident Deaths	5,285
Crude Death Rate	7.8
Total Resident Fetal Deaths	69
Fetal Death Ratio	6.4
Infant Deaths	90
Infant Death Rate	8.3
Neonatal Deaths	43
Neonatal Death Rate	4.0
Perinatal Deaths	112
Perinatal Death Rate	10.3
Maternal Deaths	0
Maternal Death Rate	0.0

Deaths

Between 1960 and 1980 the number of deaths occurring to North Dakota residents decreased from 5,449 to 5,285 (Figure 2.1). During the same time period the crude death rate also declined, from 8.6 to 7.8. The lowest crude death rate was recorded in 1986 (7.8), while the highest corresponding rates were observed in 1969, 1970, 1973, and 1974 (a rate of 9.1) (Table 2.1 and Figure 2.2).

Generally, state and national crude death rates have followed similar trends, ones of slight decline, during the 1960-1986 time period. Although state and national crude death rates have followed similar patterns, generally, North Dakota's crude death rates have been lower than corresponding national rates (Table 2.1 and Figure 2.2).

Of the 5,285 North Dakota resident deaths reported in 1986, 2,959 were male, 2,326 were female.

The most frequent number of deaths occurred to individuals 75-79 years of age and the least number to persons aged 5-9.

Figure 2.1
Resident Deaths
North Dakota, 1960-1986

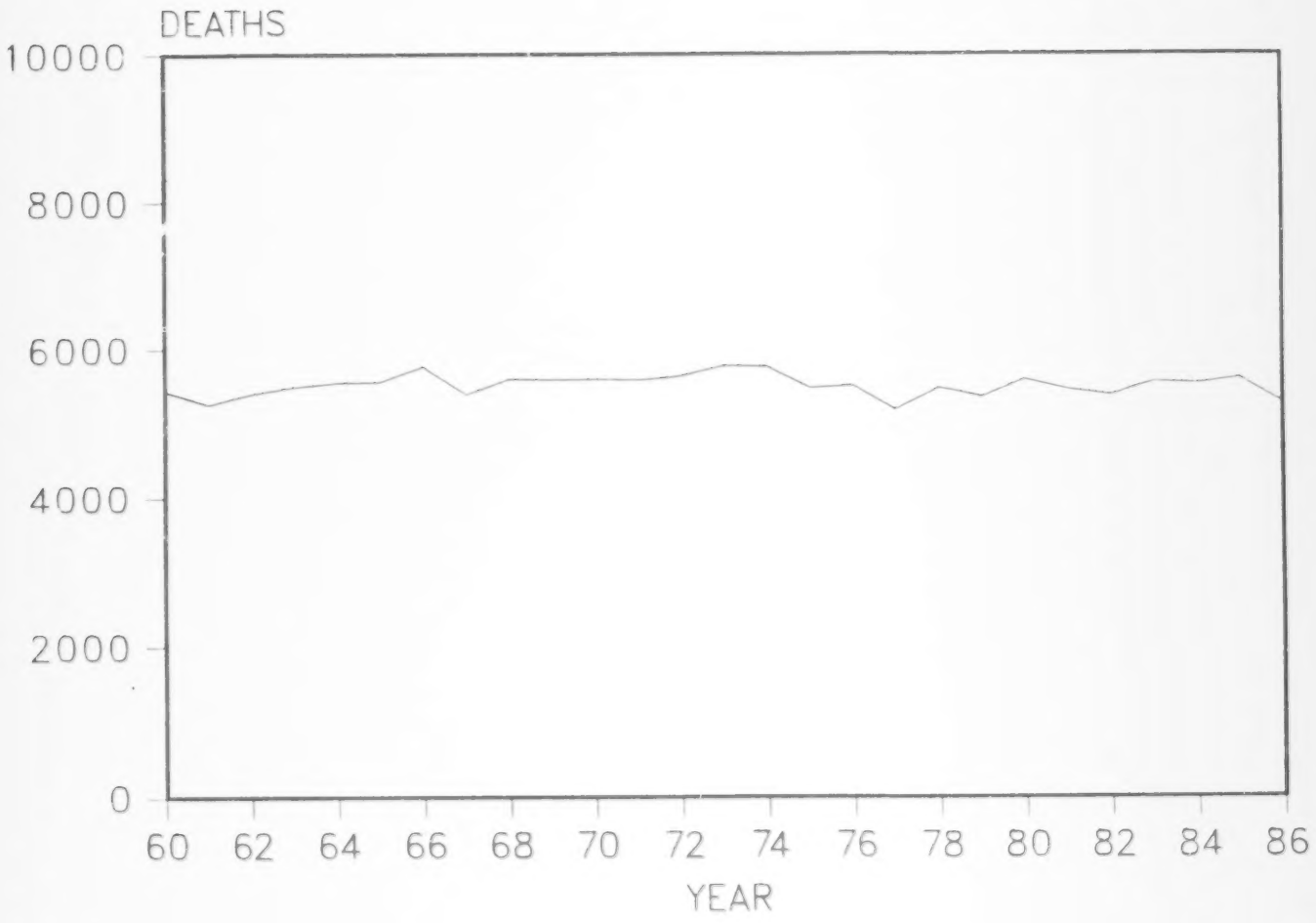


Table 2.1
Resident Deaths and Crude Death Rates
North Dakota and United States
1960-1986

Year	United States		North Dakota	
	Number	Crude Death Rate	Number	Crude Death Rate
1960	1,711,982	9.5	5,449	8.6
1961	1,701,522	9.3	5,274	8.2
1962	1,756,720	9.5	5,424	8.5
1963	1,813,549	9.6	5,516	8.5
1964	1,798,051	9.4	5,570	8.6
1965	1,828,136	9.4	5,579	8.6
1966	1,863,149	9.5	5,783	8.9
1967	1,851,323	9.4	5,401	8.6
1968	1,930,082	9.7	5,611	9.0
1969	1,921,990	9.5	5,595	9.1
1970	1,921,031	9.4	5,606	9.1
1971	1,927,543	9.3	5,591	8.9
1972	1,963,944	9.4	5,651	9.0
1973	1,973,003	9.3	5,789	9.1
1974	1,934,388	9.0	5,772	9.1
1975	1,892,879	8.8	5,482	8.6
1976	1,909,440	8.8	5,523	8.5
1977	1,899,597	8.6	5,198	8.0
1978	1,927,788	8.7	5,484	8.4
1979	1,913,841	8.5	5,360	8.2
1980	1,989,841	8.7	5,596	8.6
1981	1,977,981	8.6	5,456	8.3
1982	1,974,797	8.5	5,385	8.0
1983	2,019,201	8.6	5,569	8.2
1984	2,039,369	8.7	5,538	8.1
1985	2,075,080[1]	8.7	5,618	8.2
1986	2,095,490[1]	8.7	5,285	7.8

[1] U.S. Estimate

Figure 2.2
Resident Death Rates
North Dakota and United States
1960-1986

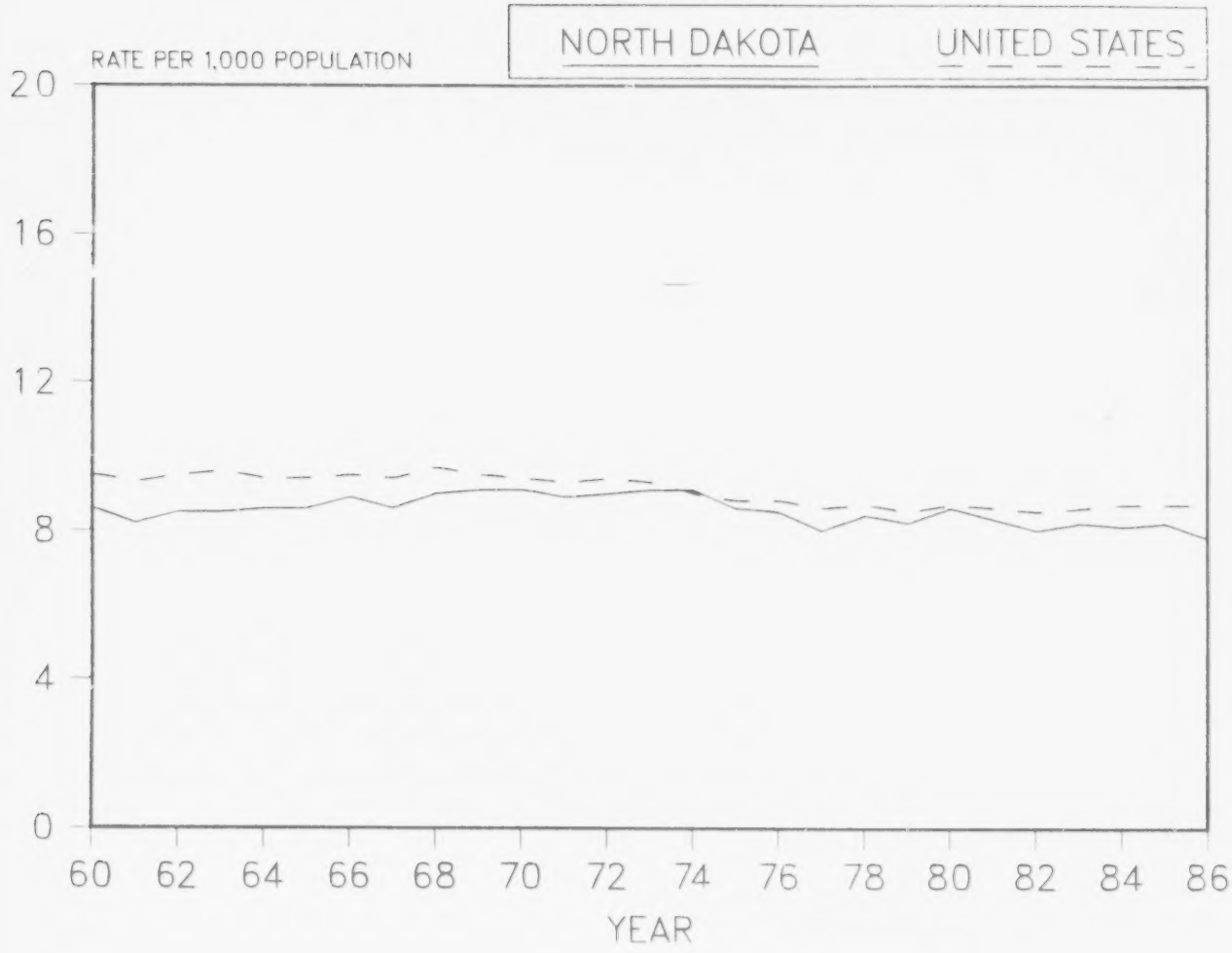


Table 2.2
Resident Deaths by Age, Race, and Sex
North Dakota, 1986

Age	Total			White			Native American			All Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Under 1 Year	90	48	42	80	44	36	10	4	6	--	--	--
1-4 Years	21	10	11	17	9	8	4	1	3	--	--	--
5-9 Years	10	7	3	9	6	3	1	1	--	--	--	--
10-14 Years	15	12	3	13	10	3	2	2	--	--	--	--
15-19 Years	27	20	7	25	19	6	2	1	1	--	--	--
20-24 Years	52	39	13	39	30	9	10	6	4	3	3	--
25-29 Years	42	29	13	36	23	13	5	5	--	1	1	--
30-34 Years	53	30	23	44	28	16	5	1	4	4	1	3
35-39 Years	64	43	21	53	35	18	11	8	3	--	--	--
40-44 Years	53	30	23	50	27	23	3	3	--	--	--	--
45-49 Years	81	55	26	76	51	25	4	3	1	1	1	--
50-54 Years	134	79	55	128	77	51	5	1	4	1	1	--
55-59 Years	185	127	58	178	123	55	7	4	3	--	--	--
60-64 Years	326	212	114	318	209	109	8	3	5	--	--	--
65-69 Years	454	297	157	431	281	150	23	16	7	--	--	--
70-74 Years	629	408	221	619	402	217	10	6	4	--	--	--
75-79 Years	796	480	316	790	475	315	6	5	1	--	--	--
80-84 Years	786	421	365	774	413	361	11	8	3	1	--	1
85-89 Years	755	341	414	745	338	407	10	3	7	--	--	--
90 and Over	712	271	441	707	267	440	4	3	1	1	1	--
Total	5,285	2,959	2,326	5,132	2,867	2,265	141	84	57	12	8	4

Leading Causes of Death

In 1986, 84.8 percent of all North Dakota resident deaths were attributable to the ten leading causes of death. These principal causes of death, within the state, have remained much the same in recent years. The number of deaths and death rates for the ten leading causes are shown in Table 2.3. The proportion of the total deaths resulting from five of the ten principal causes is illustrated in Figure 2.3. In addition, median ages at death by leading cause of death are presented in Figure 2.4.

Table 2.3
Leading Causes of Resident Death
and Cause-Specific Rates(1)
North Dakota and United States
1986

United States				North Dakota			
Cause	Rank	Deaths	Death Rate	Cause	Rank	Deaths	Death Rate
Diseases of the Heart	1	763,380	316.7	Diseases of the Heart	1	1,882	277.1
Malignant Neoplasms	2	465,440	193.1	Malignant Neoplasms	2	1,203	177.1
Cerebrovascular Disease	3	147,390	61.1	Cerebrovascular Disease	3	410	60.4
Accidents	4	93,990	39.0	Accidents	4	228	33.6
Chronic Obstructive Pulmonary Diseases and Allied Conditions	5	75,220	31.2	Influenza and Pneumonia	5	226	33.3
Influenza and Pneumonia	6	69,250	28.7	Chronic Obstructive Pulmonary Diseases and Allied Conditions	6	198	29.2
Diabetes	7	36,240	15.0	Atherosclerosis	7	99	14.6
Suicide	8	30,240	12.5	Diabetes	8	86	12.7
Cirrhosis of the Liver	9	26,140	10.8	Suicide	9	75	11.0
Atherosclerosis	10	22,060	9.2	Nephritis and Nephrosis	10	72	10.6
Subtotal		1,729,350	717.3	Subtotal		4,479	659.5
All Other Causes		366,140	151.9	All Other Causes		806	118.7
Total		2,095,490	869.2	Total		5,285	778.2

(1) Per 100,000 Resident Population

Figure 2.3
Leading Causes of Resident Death
North Dakota and United States
1986

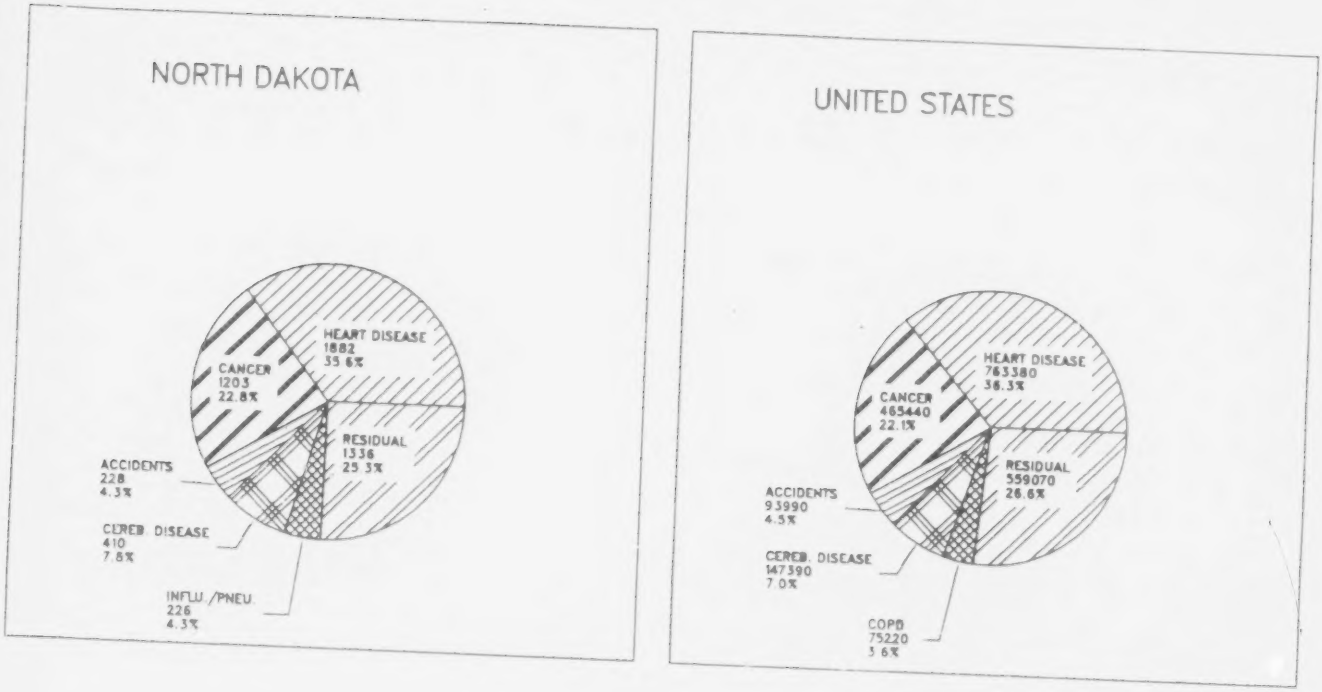
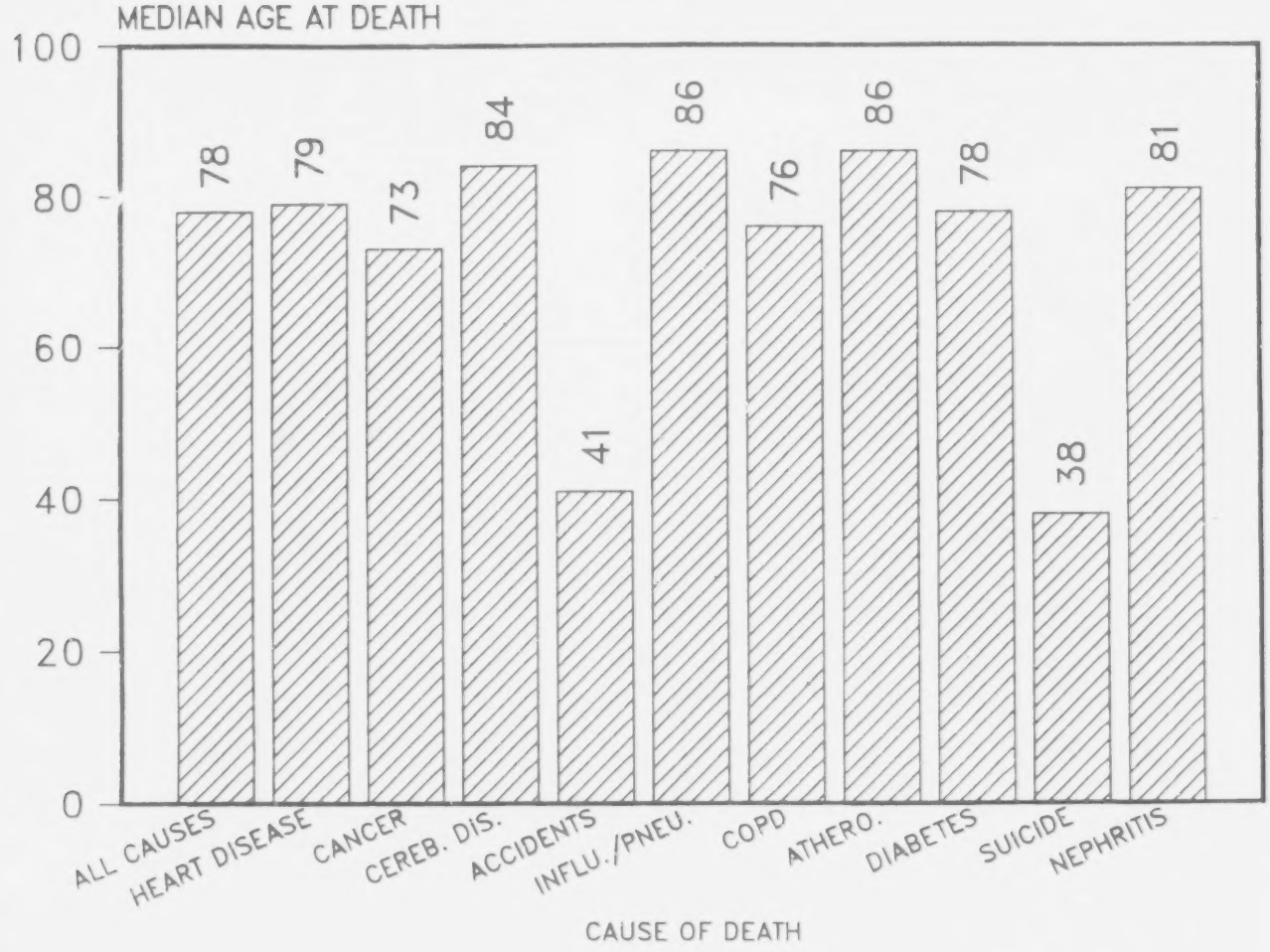


Figure 2.4
Leading Causes of Resident Death
by Median Age at Death
North Dakota, 1986



As mentioned previously, the most frequent causes of death among all North Dakota residents has changed little in recent years. This, however, does not imply similarity in the leading causes of death among residents at different ages or of different gender. Figure 2.5 and Table 2.4 contains the most frequent causes of death by age.

Examination of Figure 2.5 and Table 2.4 discloses that major differences in the leading causes of death were associated with age. Malignant neoplasms had the most widespread significance of any condition, as they were present in 7 of the 8 age cohorts. In addition, diseases of the heart were present in 6 of the 8 cohorts, while accidents appeared in 5 of the age groups. The variation in leading causes of death by age was most evident among deaths to infants under one year of age. External causes of death, including accidents and suicides, were predominant among persons ages 1 through 34. At ages 35 years and older, chronic conditions were responsible for the largest proportion of deaths.

Figure 2.5
Leading Causes of Resident Death by Age
North Dakota, 1986

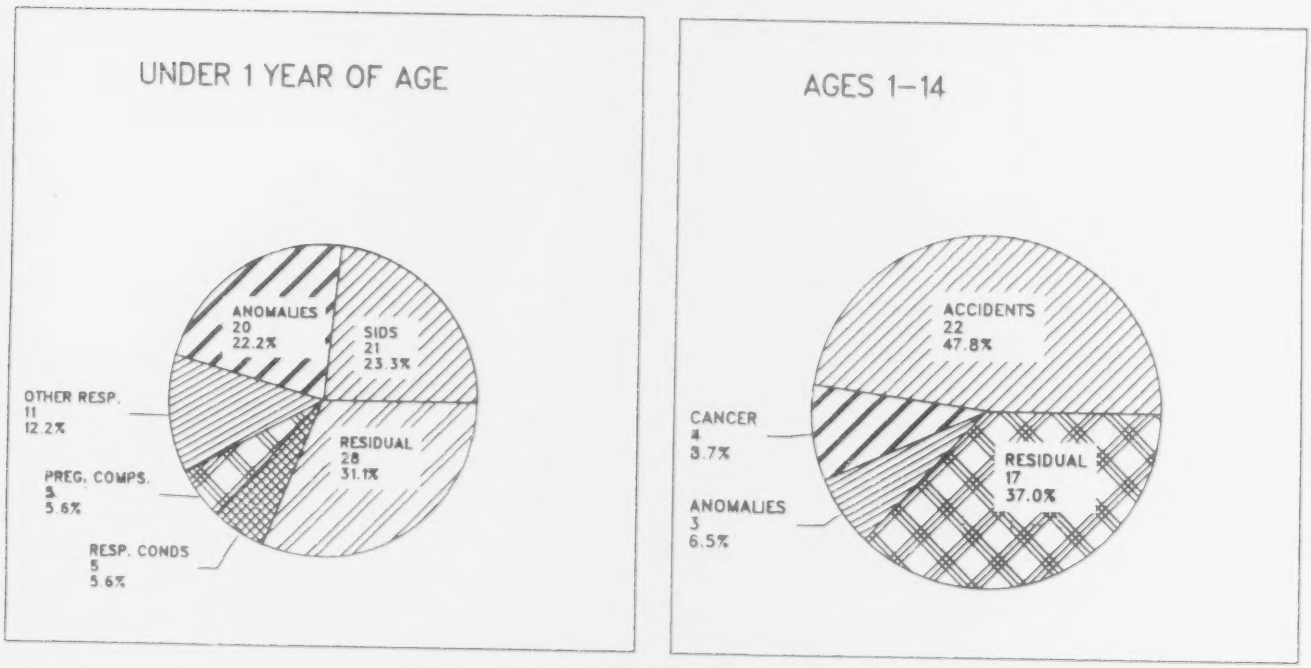
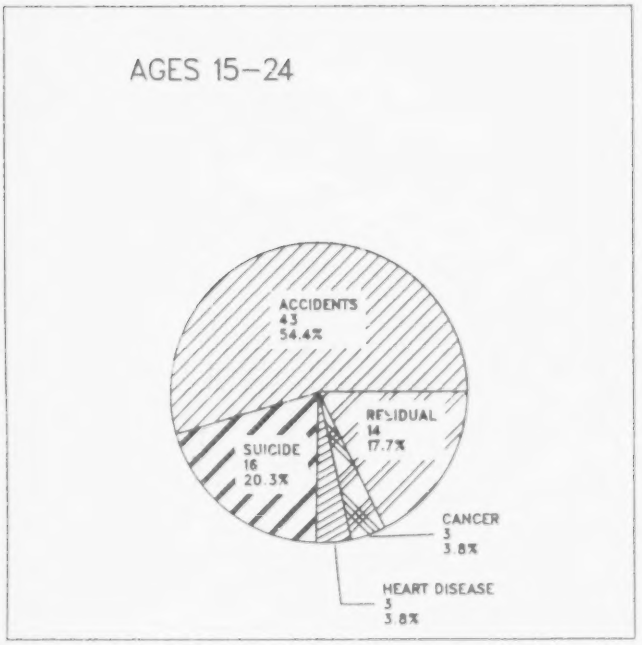
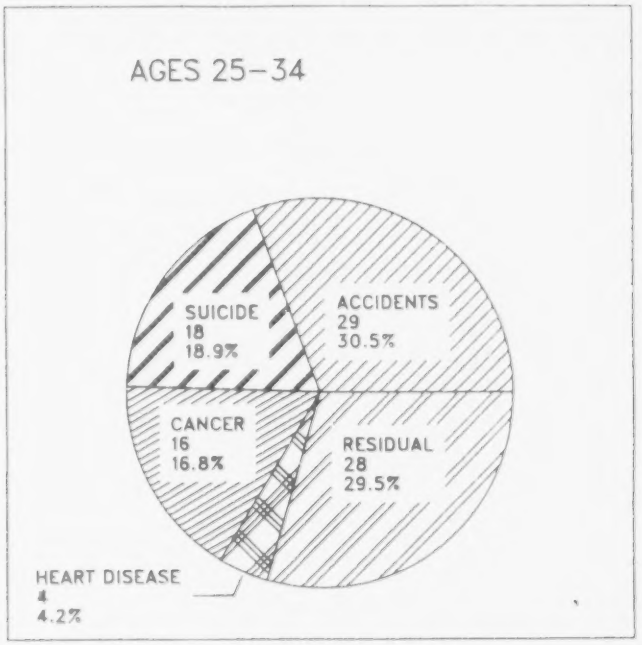
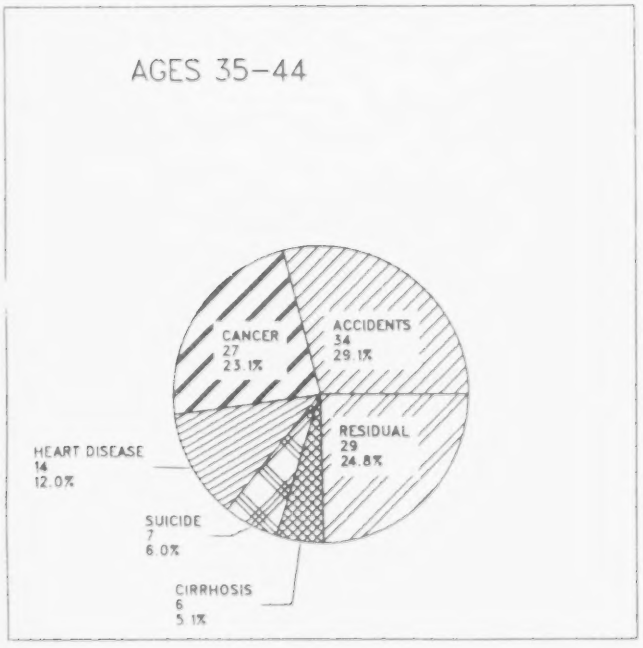


Figure 2.5 (Continued)
Leading Causes of Resident Death by Age
North Dakota, 1986







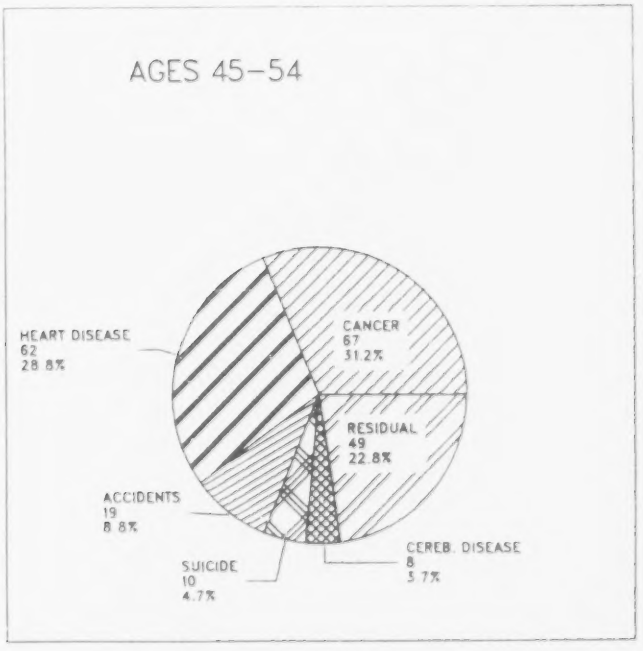
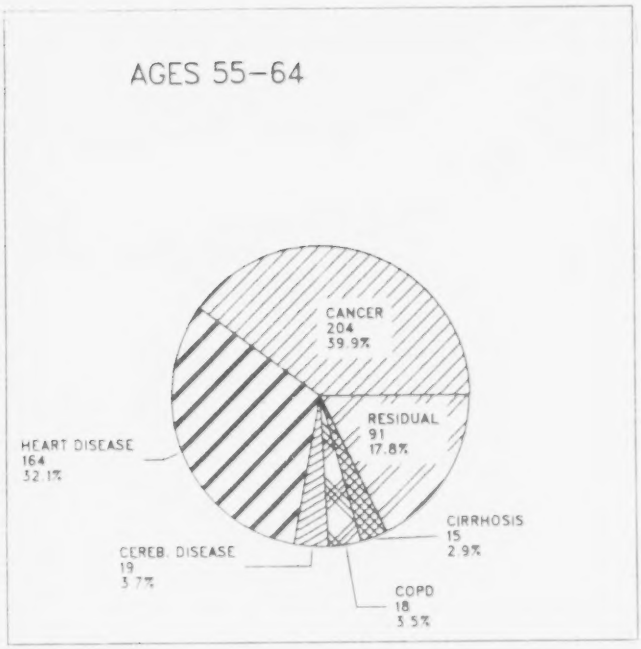


Figure 2.5 (Continued)
Leading Causes of Resident Death by Age
North Dakota, 1986



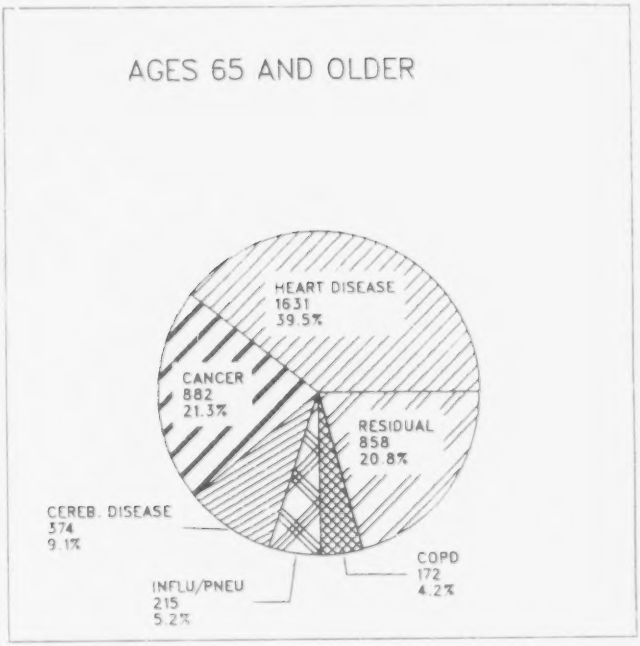


Table 2.4
Leading Causes of Resident Death by Age
North Dakota, 1986

Rank	All Ages	Under 1 Year	1-14	15-24	25-34	35-44	45-54	55-64	65 and Older
1	Diseases of the Heart 1,882	SIDS 21	Accidents 22	Accidents 43	Accidents 29	Accidents 34	Malignant Neoplasms 67	Malignant Neoplasms 204	Diseases of the Heart 1,631
2	Malignant Neoplasms 1,203	Congenital Anomalies 20	Malignant Neoplasms 4	Suicide 16	Suicide 18	Malignant Neoplasms 27	Diseases of the Heart 62	Diseases of the Heart 164	Malignant Neoplasms 882
3	Cerebro-vascular Disease 410	Other Respiratory Conditions 11	Congenital Anomalies 3	Diseases of the Heart 3	Malignant Neoplasms 16	Diseases of the Heart 14	Accidents 19	Cerebro-vascular Disease 19	Cerebro-vascular Disease 374
4	Accidents 228	Complications of Placenta, Cord, etc. 5	------	Malignant Neoplasms 3	Diseases of the Heart 4	Suicide 7	Suicide 10	COPD 18	Influenza and Pneumonia 215
5	Influenza and Pneumonia 226	Respiratory Distress Syndrome 5	------	------	------	Cirrhosis of the Liver 6	Cerebro-vascular Disease 8	Cirrhosis of the Liver 15	COPD 172
Total Deaths All Causes	5,285	90	46	79	95	117	215	511	4,132

Diseases of the Heart

In 1986, 1,882 North Dakota residents died from diseases of the heart. Heart disease continued to be the single leading cause of death in North Dakota and in the United States, accounting for more deaths than the next three leading causes combined; namely malignant neoplasms, cerebrovascular disease and accidental deaths.

Examination of Table 2.5 indicates that heart disease deaths were more prevalent in the older age groups and that male heart disease deaths were more frequent than female deaths. More than 65 percent of the state's resident heart disease deaths were to individuals 75 years of age and older. In addition, male deaths were substantially more frequent in nearly all age groups.

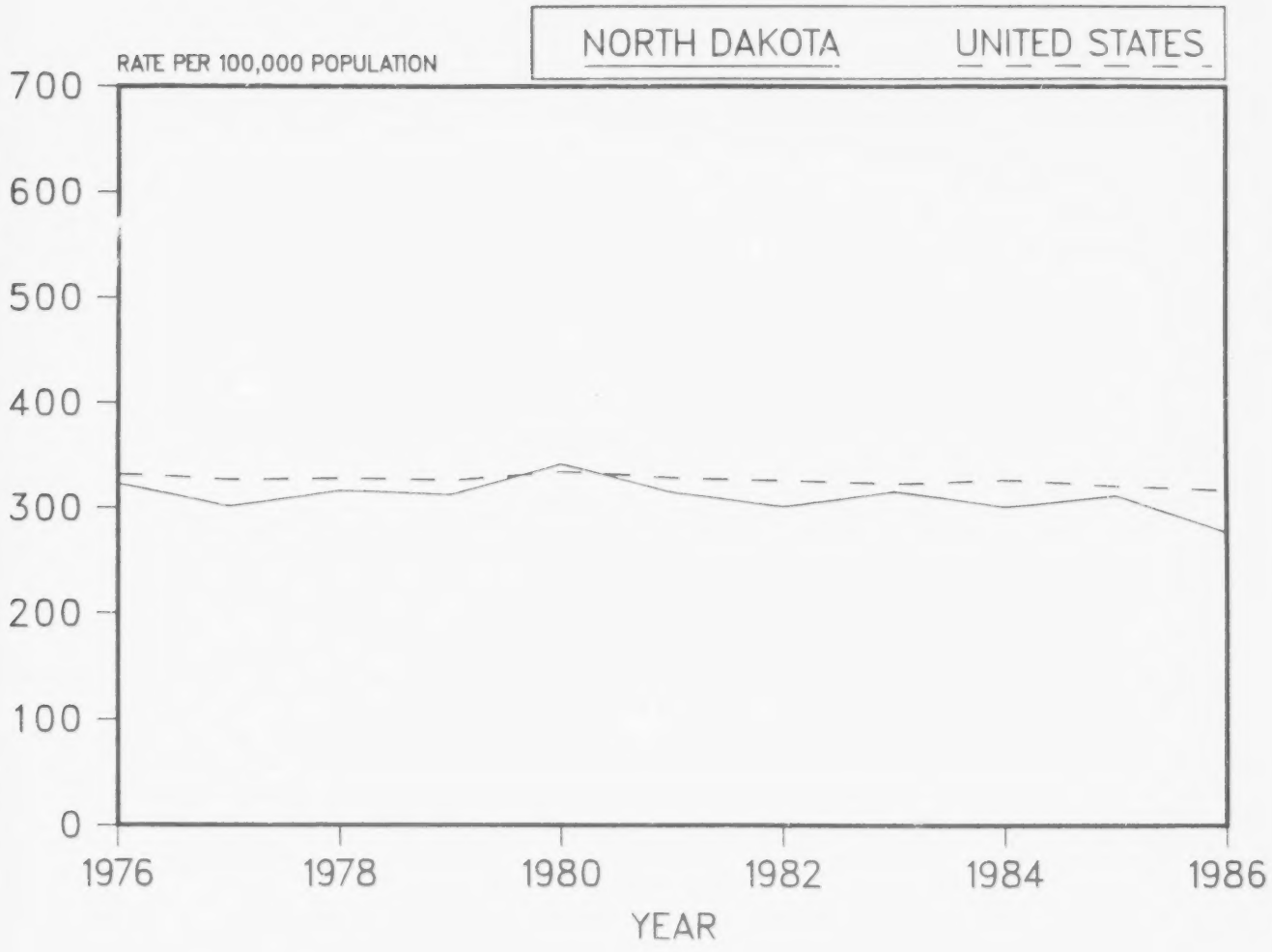
During the 1976-1986 time period, diseases of the heart death rates fluctuated somewhat, with a slight decline noted, both nationwide and within North Dakota. The 1986 state death rate was slightly lower than the corresponding United States rate (Figure 2.6).

Table 2.5
Resident Deaths Due to Diseases of the Heart
by Age, Race, and Sex
North Dakota, 1986

Age	All Races			White		Native American	
	Total	Male	Female	Male	Female	Male	Female
Under 1 Year	2	1	1	1	1	--	--
1-4 Years	2	--	2	--	1	--	1
5-14 Years	--	--	--	--	--	--	--
15-24 Years	3	2	1	1	1	1(1)	--
25-34 Years	4	2	2	2	1	--	1
35-44 Years	14	11	3	10	3	1	--
45-54 Years	62	52	10	50	10	2	--
55-64 Years	164	126	38	125	36	1	2
65-74 Years	405	275	130	265	126	10	4
75-84 Years	644	361	283	355	281	6	2
85+ Years	582	234	348	233	347	1	1
Total	1,882	1,064	818	1,042	807	22(1)	11

(1) Includes One "Other" Race Male

Figure 2.6
Resident Heart Disease Death Rates
North Dakota and United States
1976-1986



Cancer

Of the 5,285 North Dakota resident deaths, 1,203 persons died from cancer in 1986. Of these cancer deaths, 685 were male, while 518 were female. Cancer deaths in general, and male cancer deaths in particular, were more prevalent in the older age groups (Table 2.6).

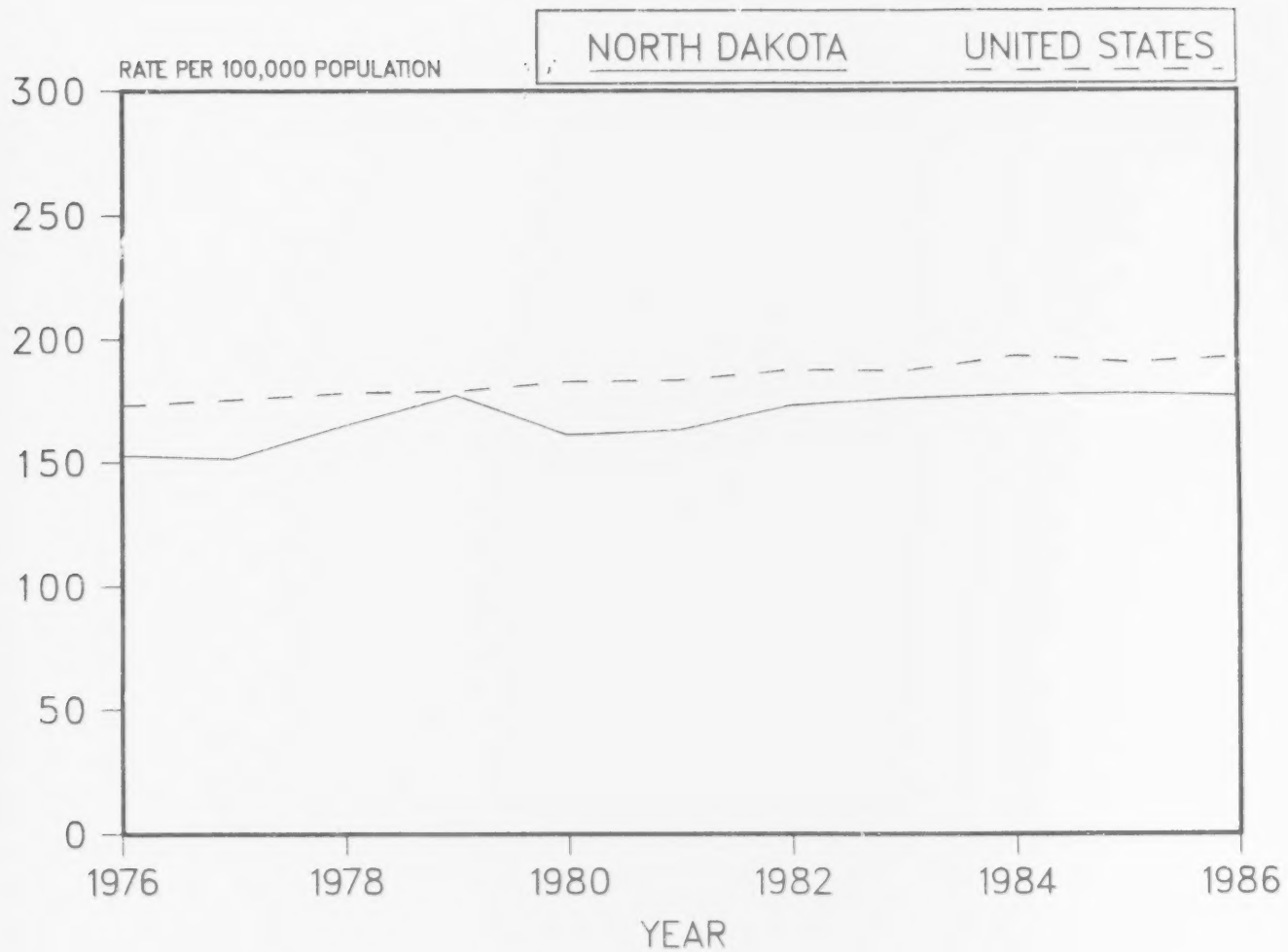
Generally, both national and statewide cancer death rates increased slightly during the 1976-1986 time period. In 1986 the state cancer death rate was slightly lower than the corresponding national rate (Figure 2.7).

Table 2.6
Resident Deaths Due to Malignant Neoplasms by Age, Race, and Sex
North Dakota, 1986

Age	All Races			White		Native American	
	Total	Male	Female	Male	Female	Male	Female
Under 1 Year	--	--	--	--	--	--	--
1-4 Years	1	1	--	1	--	--	--
5-14 Years	3	3	--	3	--	--	--
15-24 Years	3	2	1	2	--	--	1
25-34 Years	16	4	12	4	11	--	1
35-44 Years	27	9	18	8	18	1	--
45-54 Years	67	28	39	27	36	1(1)	3
55-64 Years	204	123	81	121	79	2	2
65-74 Years	348	218	130	216	126	2	4
75-84 Years	358	209	149	207	148	2	1
85+ Years	176	88	88	87	88	1	--
Total	1,203	685	518	676	506	9(1)	12

(1) Includes One "Other" Race Male

Figure 2.7
Resident Malignant Neoplasm Death Rates
North Dakota and United States
1976-1986



Cerebrovascular Disease

Deaths due to cerebrovascular disease (CVD) numbered 410 among North Dakota residents in 1986. Of the total deaths, 186 were male and 224 were female.

CVD deaths were substantially more prevalent in the older age groups. Approximately 78 percent of North Dakota's CVD deaths were to individuals ages 75 years and older (Table 2.7).

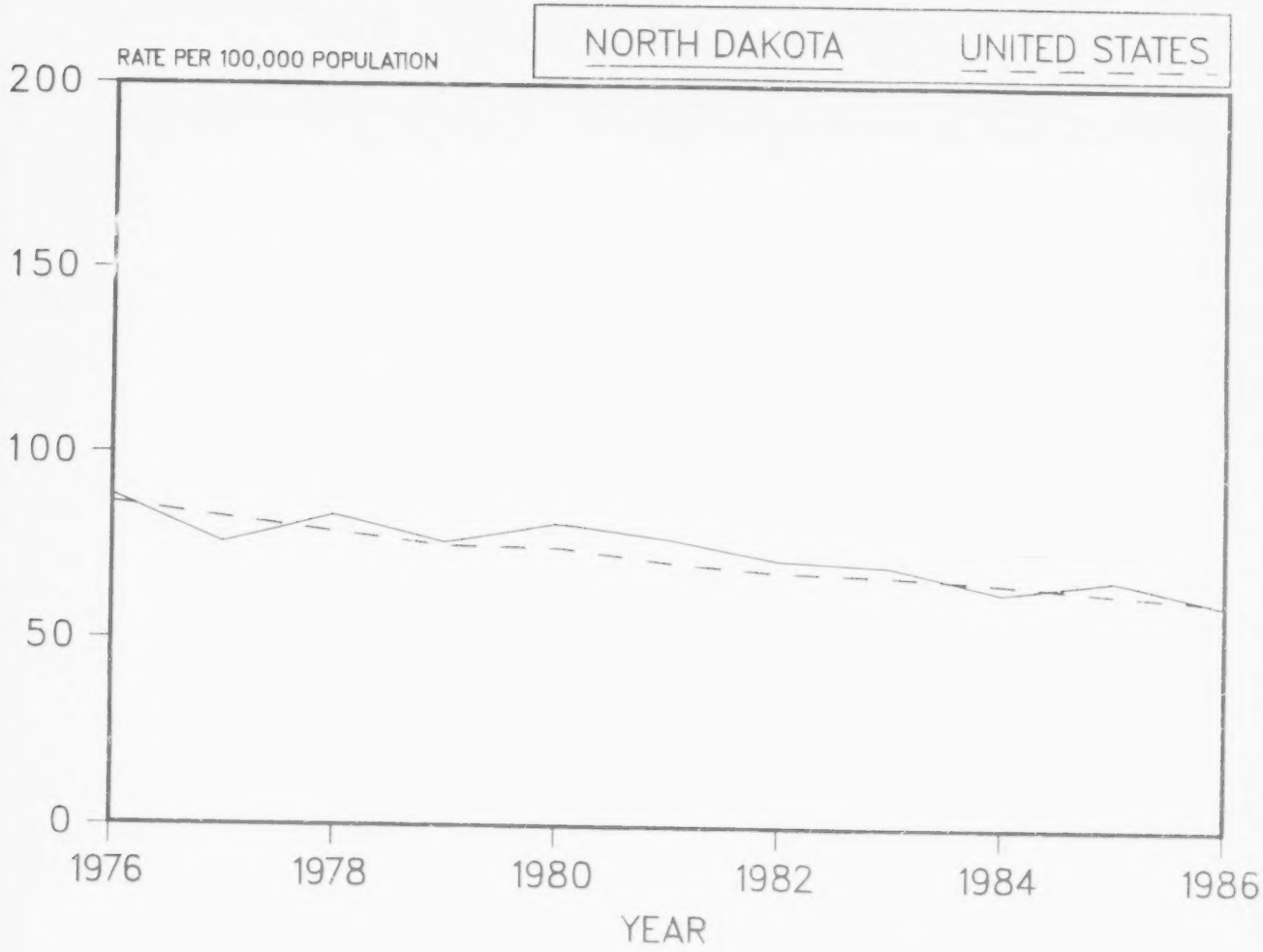
The historic pattern (1976-1986) of cerebrovascular disease death rates for North Dakota and the United States has been one of general decline. In 1986 the state CVD death rate was slightly lower than the corresponding national rate (Figure 2.8).

Table 2.7
Resident Deaths Due to
Cerebrovascular Disease by Age, Race, and Sex
North Dakota, 1986

Age	All Races			White		Native American	
	Total	Male	Female	Male	Female	Male	Female
Under 1 Year	--	--	--	--	--	--	--
1-4 Years	--	--	--	--	--	--	--
5-14 Years	--	--	--	--	--	--	--
15-24 Years	1	--	1	--	1	--	--
25-34 Years	3	--	3	--	3	--	--
35-44 Years	5	1	4	--	4	1	--
45-54 Years	8	4	4	4	4	--	--
55-64 Years	19	11	8	11	8	--	--
65-74 Years	55	36	19	35	17	1	2
75-84 Years	131	68	63	68	62	--	1[(1)]
85+ Years	188	66	122	65	120	1	2
Total	410	186	224	183	219	3	5[(1)]

[(1)] Includes One "Other" Race Female

Figure 2.8
Resident Cerebrovascular Disease Death Rates
North Dakota and United States
1976-1986



Accidents

Approximately 4 percent of all North Dakota resident deaths were the results of accidents. Of the total 228 accidental deaths, 165 were male while 63 were female.

Accidental deaths among males were particularly concentrated in the 15-24, 25-34, and 35-44 age groups. These three age groups accounted for 32.1 percent of all male accidental deaths.

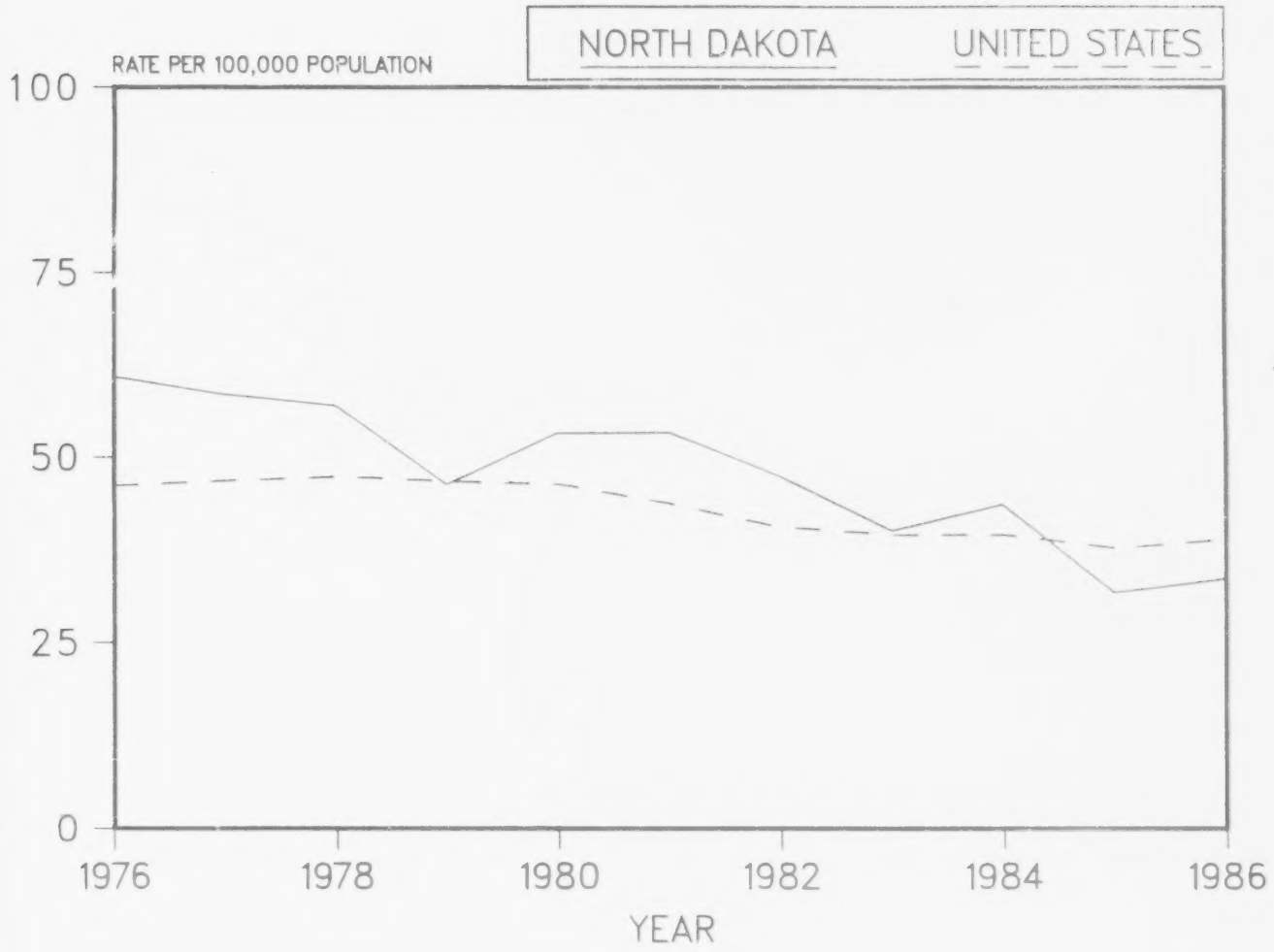
Generally, national and state accidental death rates fluctuated substantially during the 1976-1986 time period. State accidental death rates were higher than corresponding national rates in a majority of the reporting periods (Figure 2.9).

Table 2.8
Resident Deaths Due to Accidents
by Age, Race, and Sex
North Dakota, 1986

Age	All Races			White		Native American	
	Total	Male	Female	Male	Female	Male	Female
Under 1 Year	1	--	1	--	1	--	--
1-4 Years	13	6	7	5	5	1	2
5-14 Years	9	6	3	4	3	2	--
15-24 Years	43	34	9	28	6	6[1]	3
25-34 Years	29	25	4	21	4	4[1]	--
35-44 Years	34	27	7	22	6	5	1
45-54 Years	19	17	2	16	2	1	--
55-64 Years	15	12	3	10	3	2	--
65-74 Years	20	14	6	13	6	1	--
75-84 Years	17	10	7	10	7	--	--
85+ Years	28	14	14	14	14	--	--
Total	228	165	63	143	57	22[1]	6

[1] Includes Two "Other" Race Males

Figure 2.9
Resident Accident Death Rates
North Dakota and United States
1976-1986



Influenza and Pneumonia

One of every 23 deaths which occurred to North Dakota residents in 1986 was due to influenza and pneumonia. There were a total of 226 deaths of which 133 were male and 93 were female.

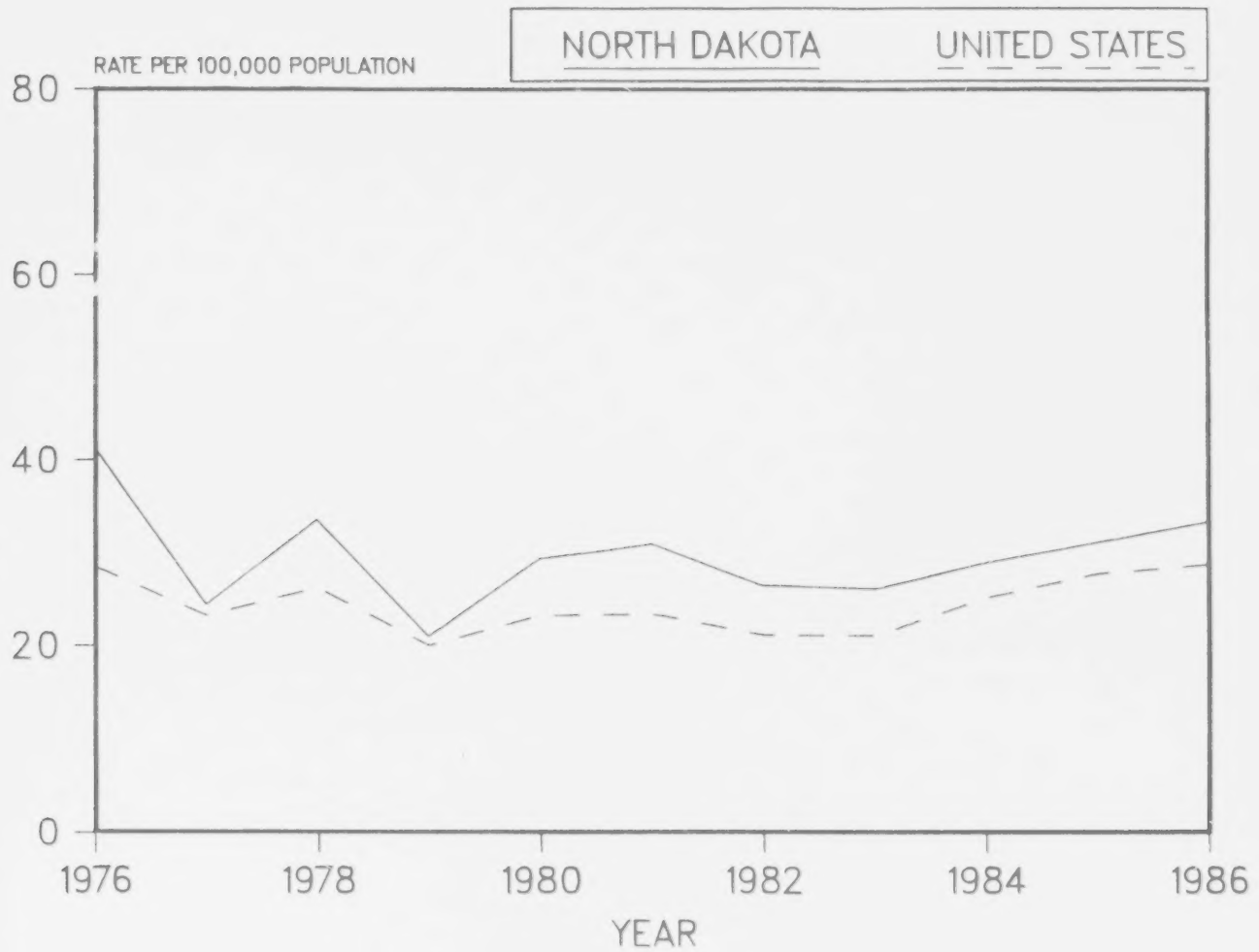
Since 1976 national and state influenza and pneumonia death rates have been erratic. Although both state and national rate patterns have been relatively similar, North Dakota has experienced consistently higher influenza and pneumonia death rates than reported nationwide. In 1986 North Dakota reported a rate of 33.3, while a rate of 28.7 was recorded nationally (Figure 2.10).

Table 2.9
Resident Deaths Due to Influenza
and Pneumonia by Age, Race, and Sex
North Dakota, 1986

Age	All Races			White		Native American	
	Total	Male	Female	Male	Female	Male	Female
Under 1 Year	1	1	--	1	--	--	--
1-4 Years	1	--	1	--	1	--	--
5-14 Years	1	--	1	--	1	--	--
15-24 Years	--	--	--	--	--	--	--
25-34 Years	1	--	1	--	--	--	1[(1)]
35-44 Years	--	--	--	--	--	--	--
45-54 Years	1	--	1	--	1	--	--
55-64 Years	6	5	1	4	1	1	--
65-74 Years	26	19	7	15	7	4	--
75-84 Years	68	42	26	41	26	1	--
85+ Years	121	66	55	64	55	2	--
Total	226	133	93	125	92	8	1[(1)]

[(1)] Includes One "Other" Race Female

Figure 2.10
Resident Influenza and Pneumonia Death Rates
North Dakota and United States
1976-1986



Chronic Obstructive Pulmonary Disease

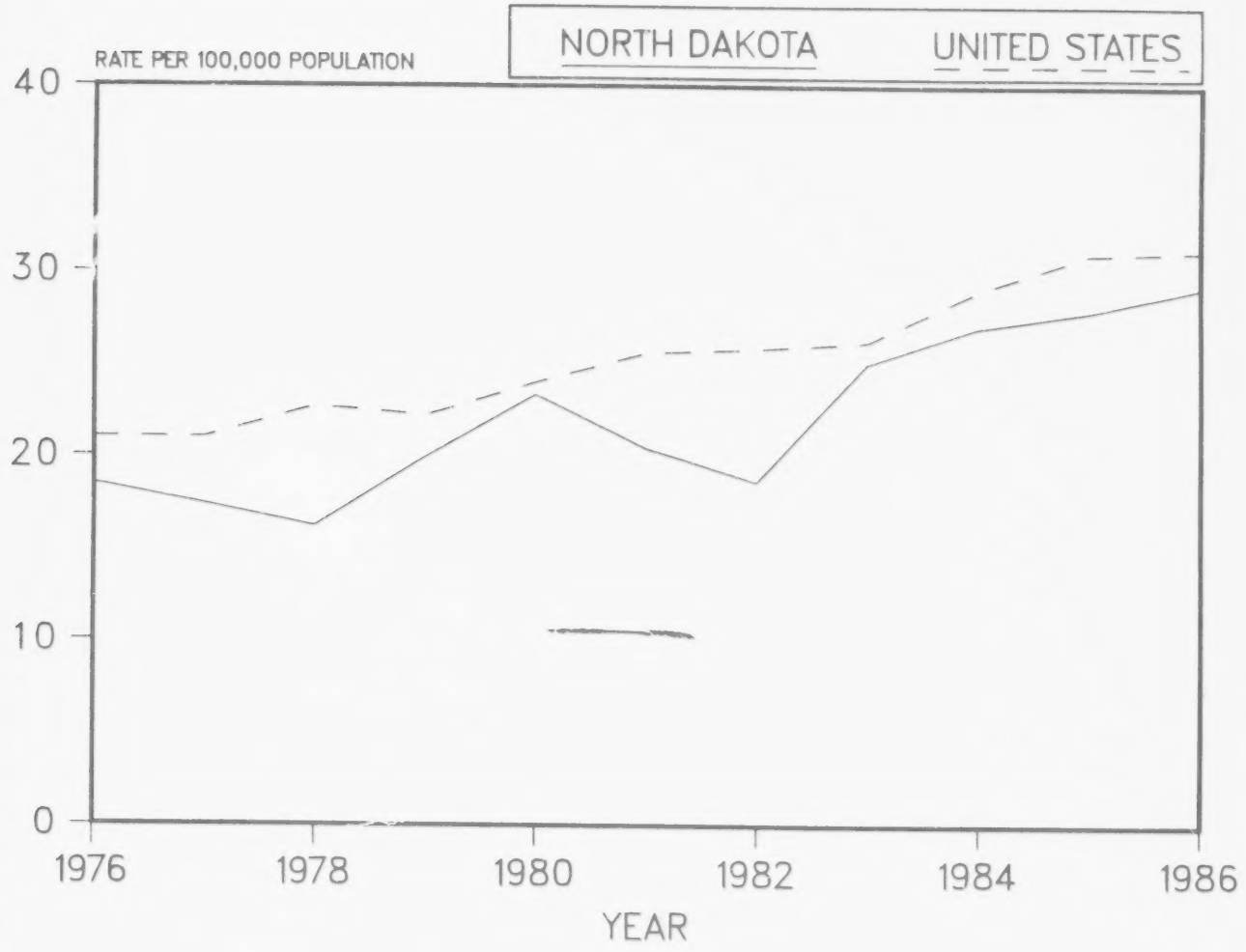
In 1986, 198 North Dakota residents died from chronic obstructive pulmonary disease (COPD). Nearly three-fourths of all COPD deaths were male. Substantial death differentials, regarding gender, were noted in nearly all age groupings.

During the 1976-1986 time period COPD death rates, both nationally and statewide, increased sharply. Generally, North Dakota rates have been lower than corresponding national COPD death rates (Figure 2.11).

Table 2.10
Resident Deaths Due to Chronic Obstructive Pulmonary Diseases
and Allied Conditions by Age, Race, and Sex
North Dakota, 1986

Age	All Races			White		Native American	
	Total	Male	Female	Male	Female	Male	Female
Under 1 Year	--	--	--	--	--	--	--
1-4 Years	--	--	--	--	--	--	--
5-14 Years	2	2	--	2	--	--	--
15-24 Years	--	--	--	--	--	--	--
25-34 Years	--	--	--	--	--	--	--
35-44 Years	--	--	--	--	--	--	--
45-54 Years	6	1	5	1	5	--	--
55-64 Years	18	12	6	11	6	1	--
65-74 Years	65	50	15	48	15	2	--
75-84 Years	69	54	15	51	15	3	--
85+ Years	38	29	9	29	9	--	--
Total	198	148	50	142	50	6	--

Figure 2.11
Resident Chronic Obstructive Pulmonary Disease Death Rates
North Dakota and United States
1976-1986



Atherosclerosis

A total of 99 North Dakota resident deaths were attributed to atherosclerosis in 1986, of which 39 were male and 60 were female.

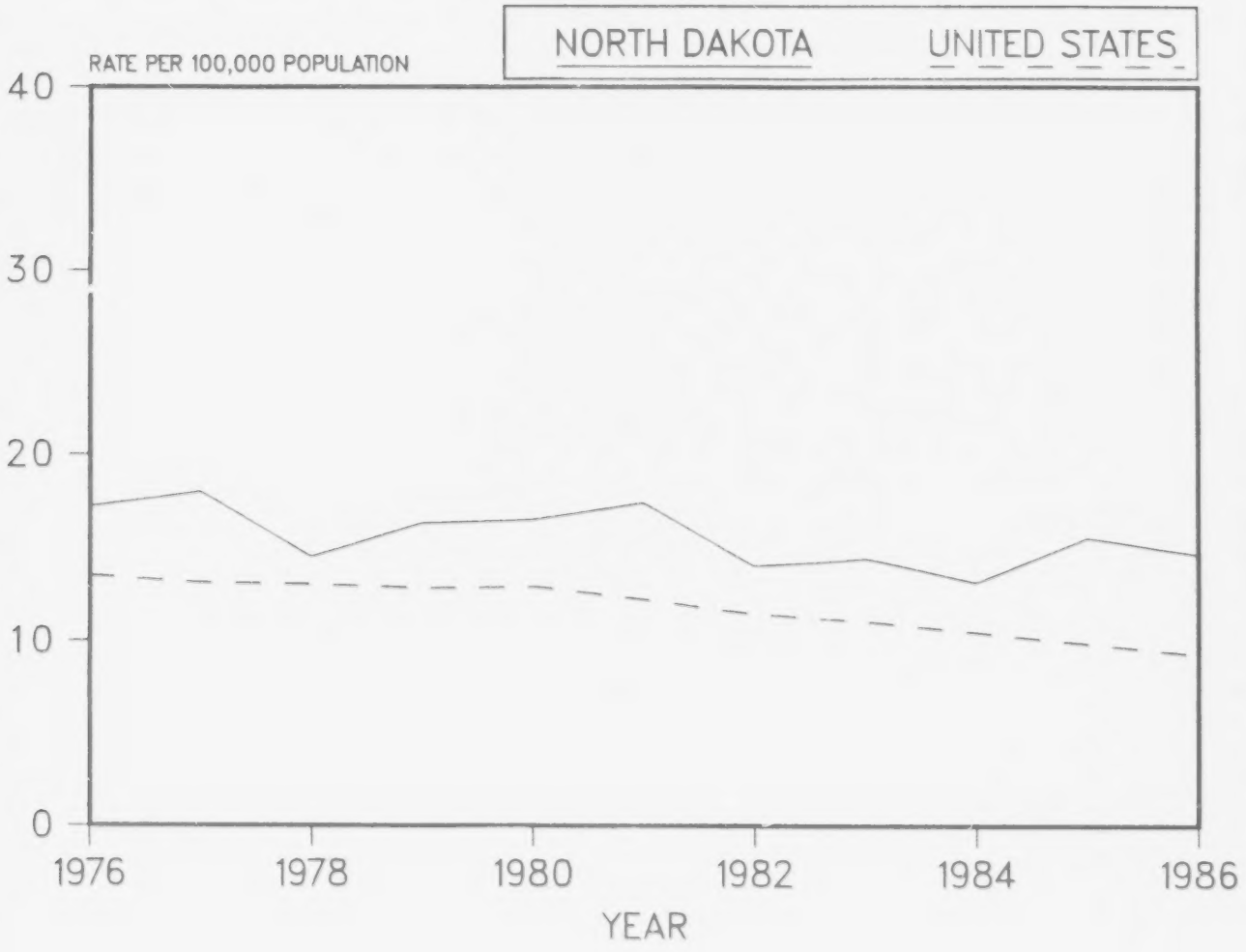
A majority (87.9 percent) of the atherosclerosis deaths occurred at ages 75 and older. A substantial death differential, regarding gender, occurred within the 85 and older age cohort where female deaths were two and one-half times that of males (Table 2.11).

Although both state and national atherosclerosis death rates have declined slightly since 1976, generally state rates have been higher than corresponding national atherosclerosis rates (Figure 2.12).

Table 2.11
Resident Deaths Due to Atherosclerosis
by Age, Race, and Sex
North Dakota, 1986

Age	All Races			White		Native American	
	Total	Male	Female	Male	Female	Male	Female
Under 1 Year	--	--	--	--	--	--	--
1-4 Years	--	--	--	--	--	--	--
5-14 Years	--	--	--	--	--	--	--
15-24 Years	--	--	--	--	--	--	--
25-34 Years	--	--	--	--	--	--	--
35-44 Years	--	--	--	--	--	--	--
45-54 Years	--	--	--	--	--	--	--
55-64 Years	2	1	1	1	1	--	--
65-74 Years	10	6	4	4	4	2	--
75-84 Years	31	16	15	16	15	--	--
85+ Years	56	16	40	16	40	--	--
Total	99	39	60	37	60	2	--

Figure 2.12
Resident Atherosclerosis Death Rates
North Dakota and United States
1976-1986



Diabetes

In 1986 diabetes mellitus was the cause of death for 86 North Dakota residents. Female deaths accounted for 46 or 53.5 percent of all diabetes mellitus deaths.

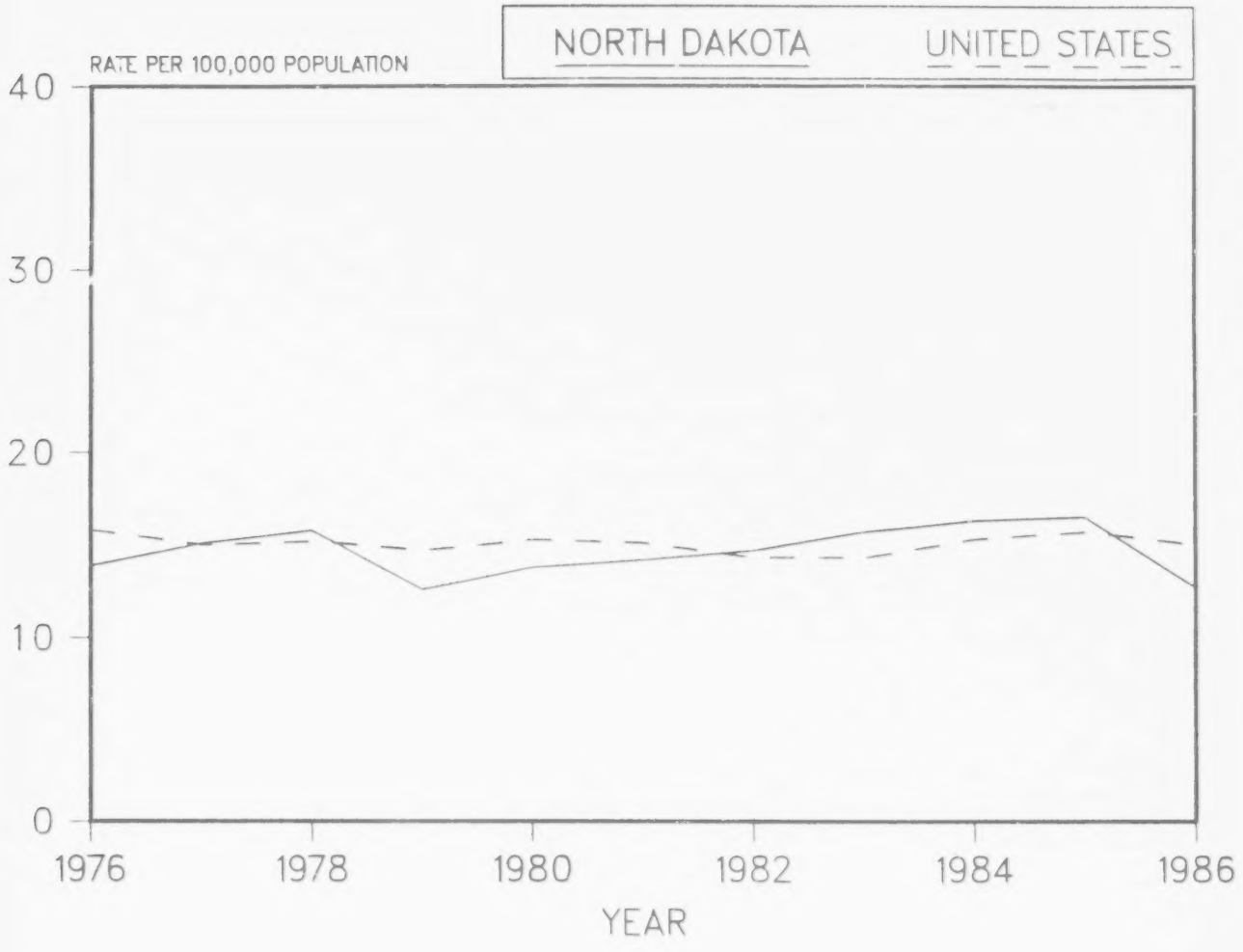
Diabetes deaths were more prevalent in the older age groups, with nearly 80 percent of the state's resident diabetes deaths aged 65 and older.

During the 1976-1986 time period the diabetes death rates fluctuated both nationally and within North Dakota. Generally, the United States diabetes death rates were higher than the corresponding state rates. In 1986 North Dakota reported a rate of 12.7, while a rate of 15.0 was experienced nationally (Figure 2.13).

Table 2.12
Resident Deaths Due to Diabetes
by Age, Race, and Sex
North Dakota, 1986

Age	All Races			White		Native American	
	Total	Male	Female	Male	Female	Male	Female
Under 1 Year	--	--	--	--	--	--	--
1-4 Years	--	--	--	--	--	--	--
5-14 Years	--	--	--	--	--	--	--
15-24 Years	--	--	--	--	--	--	--
25-34 Years	3	2	1	2	1	--	--
35-44 Years	3	2	1	2	1	--	--
45-54 Years	3	2	1	2	--	--	1
55-64 Years	11	3	8	3	6	--	2
65-74 Years	16	10	6	10	6	--	--
75-84 Years	22	13	9	13	9	--	--
85+ Years	28	8	20	8	19	--	1
Total	86	40	46	40	42	--	4

Figure 2.13
Resident Diabetes Death Rates
North Dakota and United States
1976-1986



Suicide

There were a total of 75 suicides in 1986, making suicide the ninth leading cause of death for North Dakota residents.

The number of male suicide deaths in 1986 was nearly three and one-half times that of corresponding female deaths. In every age cohort male suicides were substantially larger than corresponding female suicides (Table 2.13).

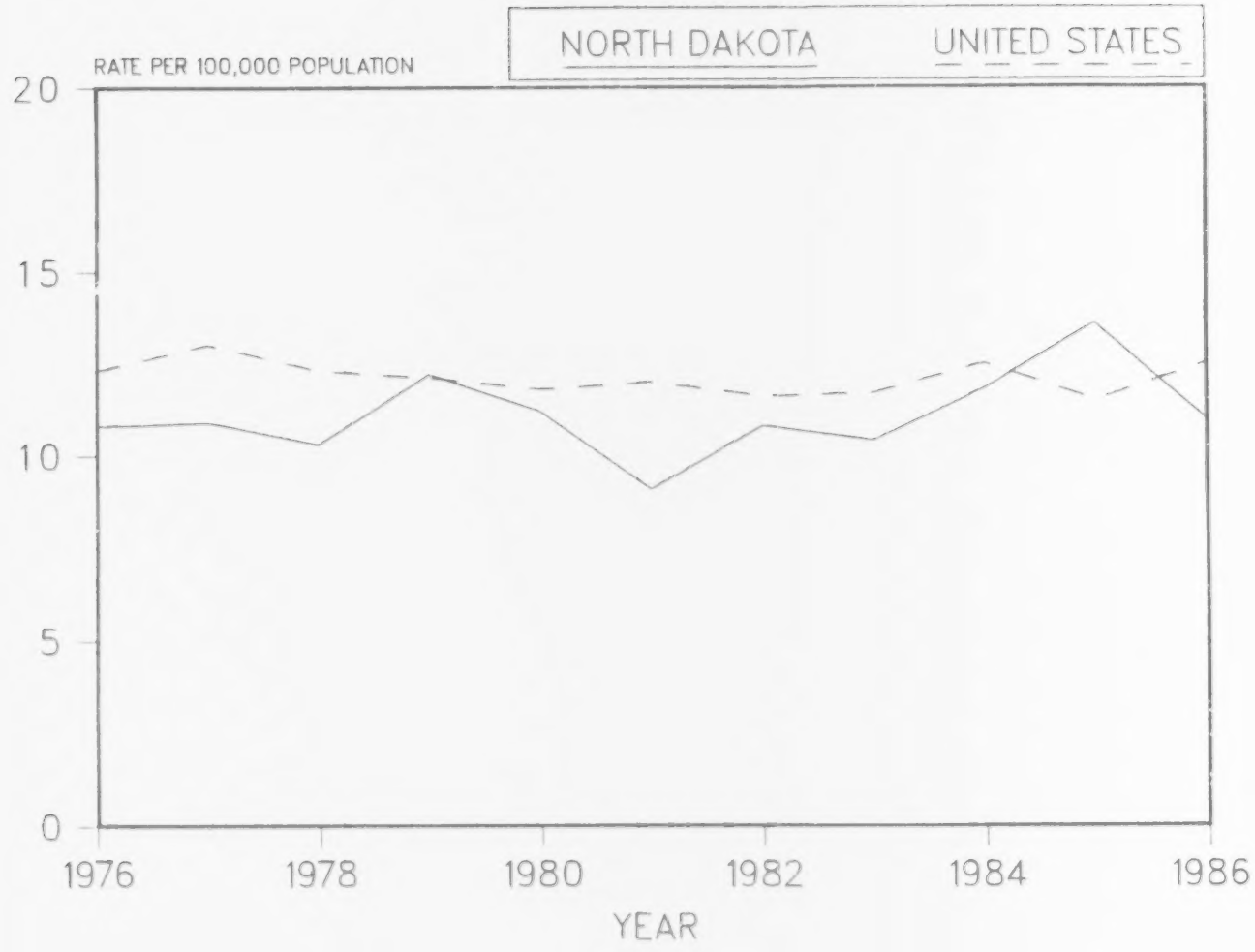
Generally, both state and national suicide death rates fluctuated considerably during the 1976-1986 time period. Although no clear-cut trend regarding suicide death rates has been formulated, national suicide death rates have generally been higher than corresponding state rates. In 1986 the state rate was 11.0 compared with 12.5 reported nationwide (Figure 2.14).

Table 2.13
Resident Deaths Due to Suicide
by Age, Race, and Sex
North Dakota, 1986

Age	All Races			White		Native American	
	Total	Male	Female	Male	Female	Male	Female
Under 1 Year	--	--	--	--	--	--	--
1-4 Years	--	--	--	--	--	--	--
5-14 Years	1	1	--	1	--	--	--
15-24 Years	16	12	4	10	3	2	1
25-34 Years	18	12	6	12	5	--	1[(1)]
35-44 Years	7	6	1	6	--	--	1
45-54 Years	10	8	2	7	2	1	--
55-64 Years	9	8	1	8	1	--	--
65-74 Years	9	6	3	6	3	--	--
75-84 Years	5	5	--	5	--	--	--
85+ Years	--	--	--	--	--	--	--
Total	75	58	17	55	14	3	3[(1)]

[(1)] Includes One "Other" Race Female

Figure 2.14
Resident Suicide Death Rates
North Dakota and United States
1976-1986



Nephritis and Nephrosis

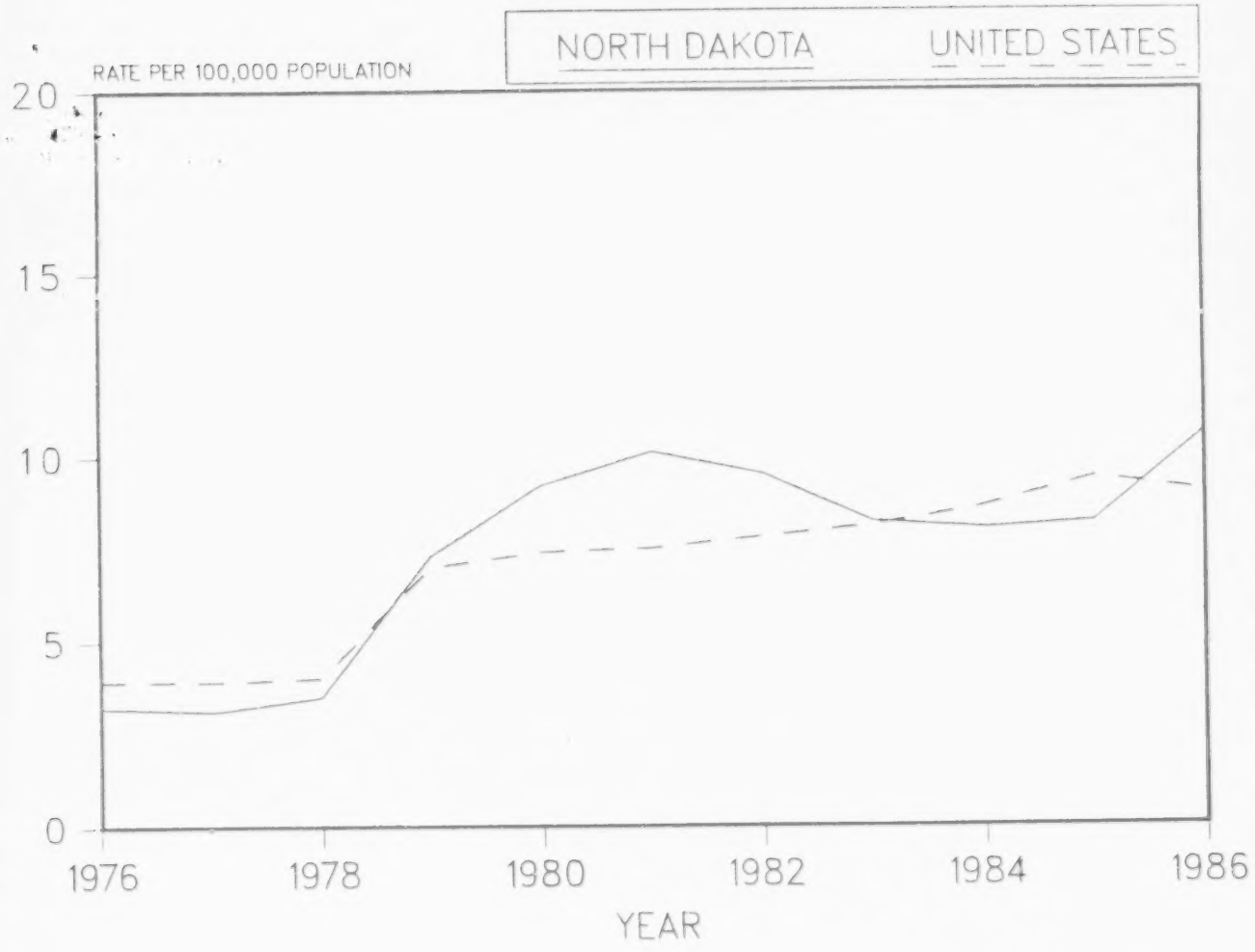
Deaths due to nephritis and nephrosis numbered 72 among North Dakota residents. Of these deaths 41 were male, while 31 were female. Examination of Table 2.14 indicates that male deaths from nephritis and nephrosis were more prevalent in nearly all age cohorts, particularly in the 65-74 age group.

Although state and national death rates for this cause have been generally similar, both have trended upward (Figure 2.15).

Table 2.14
Resident Deaths Due to Nephritis and Nephrosis
by Age, Race, and Sex
North Dakota, 1986

Age	All Races			White		Native American	
	Total	Male	Female	Male	Female	Male	Female
Under 1 Year	2	2	--	2	--	--	--
1-4 Years	--	--	--	--	--	--	--
5-14 Years	--	--	--	--	--	--	--
15-24 Years	--	--	--	--	--	--	--
25-34 Years	--	--	--	--	--	--	--
35-44 Years	--	--	--	--	--	--	--
45-54 Years	2	1	1	1	1	--	--
55-64 Years	1	1	--	1	--	--	--
65-74 Years	11	8	3	8	3	--	--
75-84 Years	33	18	15	18	15	--	--
85+ Years	23	11	12	11	11	--	1
Total	72	41	31	41	30	--	1

Figure 2.15
Resident Nephritis and Nephrosis Death Rates
North Dakota and United States
1976-1986



Infant Deaths

Of the 5,285 deaths to North Dakota residents in 1986, 90 occurred to individuals less than one year of age (Figure 2.16). Since 1960 the number of infant deaths within the state has declined 78.3 percent. The largest and smallest number of infant deaths were reported in 1960 and 1986, respectively. Nationally, the number of infant deaths estimated in 1986 was 38,360, 65.4 percent less than the 110,873 reported in 1960 (Table 2.15).

Since 1960 the rate of death for infants has also dropped considerably. In 1960 there were 24.8 North Dakota resident infant deaths per 1,000 live births, compared with 8.3 infant deaths per 1,000 live births experienced in 1986 (Figure 2.17).

Figure 2.16
Resident Infant Deaths
North Dakota, 1960-1986

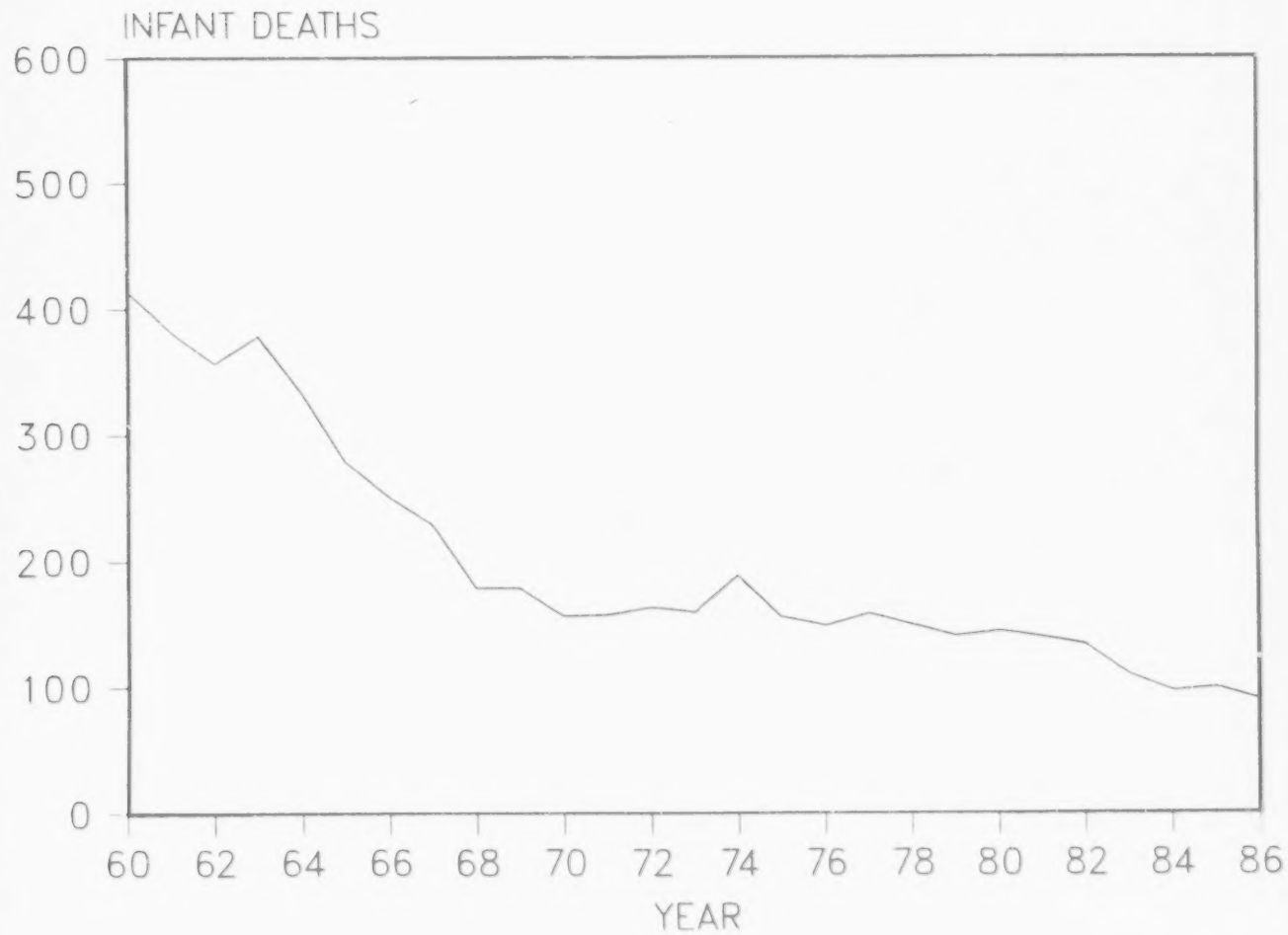
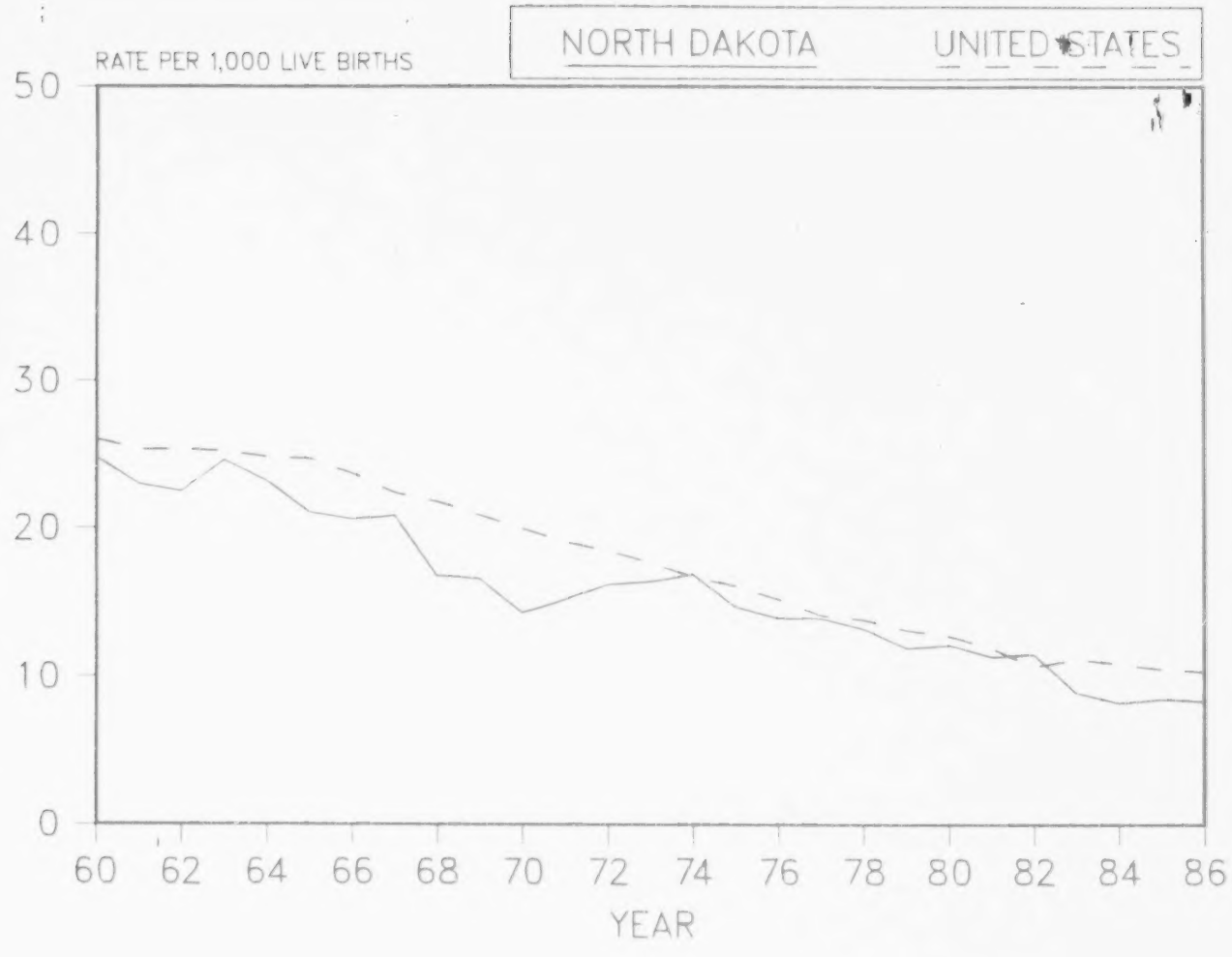


Table 2.15
Resident Infant Deaths and Infant Mortality Rates
North Dakota and United States
1960-1986

Year	United States		North Dakota	
	Number	Rate	Number	Rate
1960	110,873	26.0	414	24.8
1961	107,956	25.3	382	23.0
1962	105,479	25.3	357	22.5
1963	103,390	25.2	379	24.8
1964	99,783	24.8	334	23.2
1965	92,866	24.7	279	21.1
1966	85,516	23.7	251	20.6
1967	79,028	22.4	229	20.9
1968	76,263	21.8	179	16.8
1969	75,073	20.9	179	16.6
1970	74,667	20.0	157	14.3
1971	67,981	19.1	158	15.2
1972	60,182	18.5	164	16.2
1973	55,581	17.7	160	16.4
1974	52,776	16.7	169	16.9
1975	50,525	16.1	156	14.7
1976	48,265	15.2	149	13.9
1977	46,975	14.1	159	13.9
1978	45,945	13.8	150	13.2
1979	45,665	13.1	141	11.9
1980	45,526	12.7	145	12.1
1981	43,305	11.9	140	11.3
1982	42,401	11.5	134	10.6
1983	40,627	11.2	110	8.9
1984	39,580	10.8	97	8.2
1985	39,500(1)	10.5	100	8.5
1986	38,360(1)	10.3	90	8.3

(1) U.S. Estimate

Figure 2.17
Resident Infant Death Rates
North Dakota and United States
1960-1986



During the period 1960-1986, North Dakota's infant death rate was generally below the corresponding national rate. In 1986 the national infant mortality rate was estimated at 10.3, slightly higher than the 8.3 experienced in North Dakota.

Approximately 48 percent of all infant deaths occurred within the first month of life in 1986, with about 42 percent in the first week. These proportions were 72.5 and 59.7 in 1976, respectively (Table 2.16). Figure 2.18 portrays infant death rates at age of death.

Infant mortality rates have historically been shown to vary with age of the mother and the race of the child. Infant mortality rates by age of mother and race of child are provided in Figure 2.19 and Table 2.17. These data are obtained from a file of merged live births and infant death information.

Table 2.16
Resident Infant Deaths and
Mortality Rates by Infant's Age at Death
North Dakota, 1976-1986

Year	Total Infant Deaths		Age at Death							
			Under 1 Day		1-6 Days		7-27 Days		28 Days-1 Year	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
1976	149	13.9	56	5.2	33	3.1	19	1.8	41	3.8
1977	159	13.9	76	6.6	32	2.8	15	1.3	36	3.1
1978	150	13.2	46	4.1	38	3.3	23	2.0	43	3.8
1979	141	11.9	58	4.9	32	2.7	15	1.3	36	3.0
1980	145	12.1	44	3.7	27	2.3	21	1.8	53	4.4
1981	140	11.3	37	3.0	28	2.3	23	1.9	52	4.2
1982	134	10.6	50	4.0	24	1.9	12	0.9	48	3.8
1983	110	8.9	42	3.4	25	2.0	9	0.7	34	2.7
1984	97	8.2	30	2.5	13	1.1	11	0.9	43	3.6
1985	100	8.5	33	2.8	16	1.4	14	1.2	37	3.2
1986	90	8.3	32	3.0	6	0.6	5	0.5	47	4.3

Figure 2.18
Resident Infant Death Rates by Age at Death
North Dakota, 1976-1986

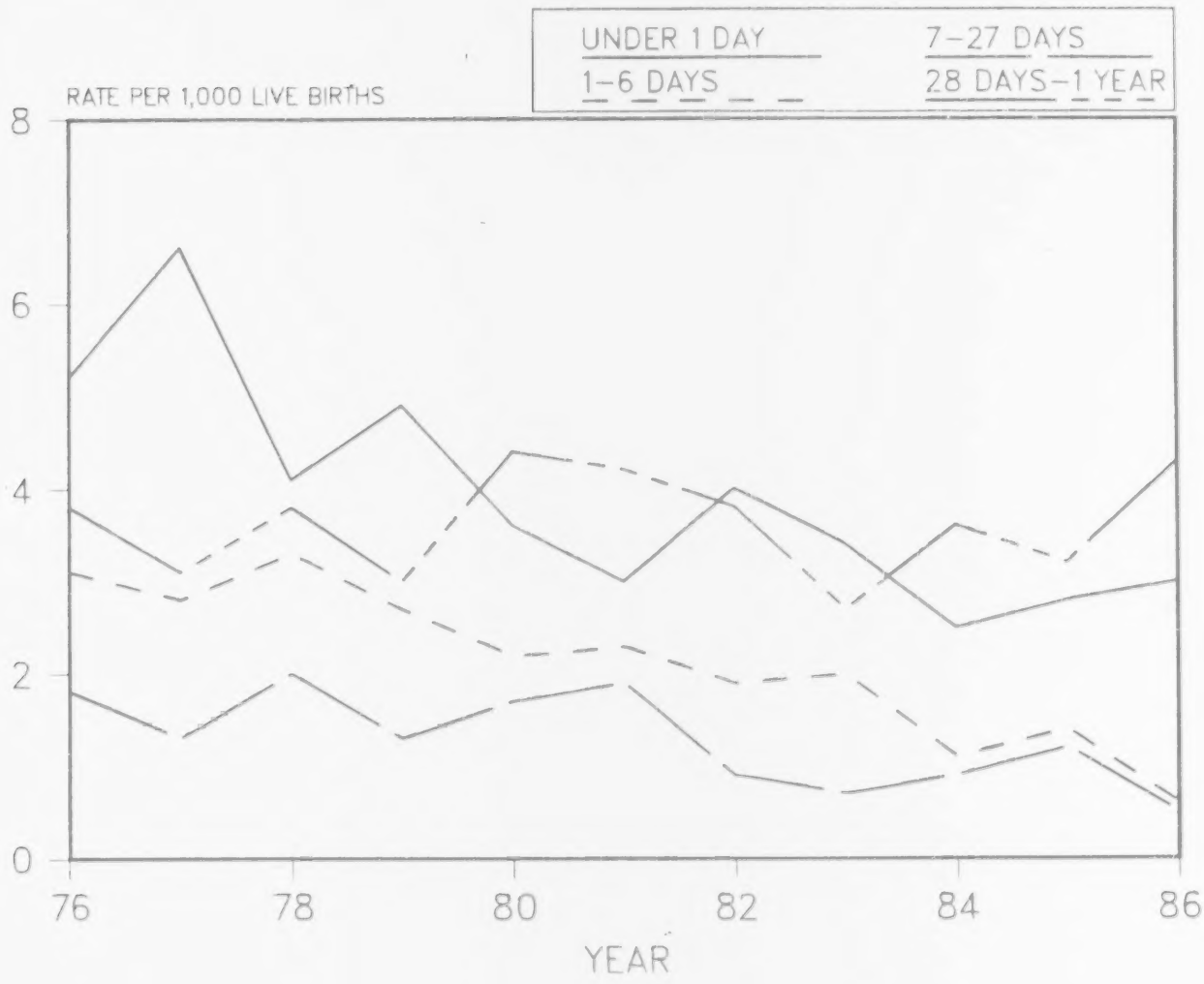


Figure 2.19
Resident Infant Death Rates by Age of Mother
North Dakota, 1986

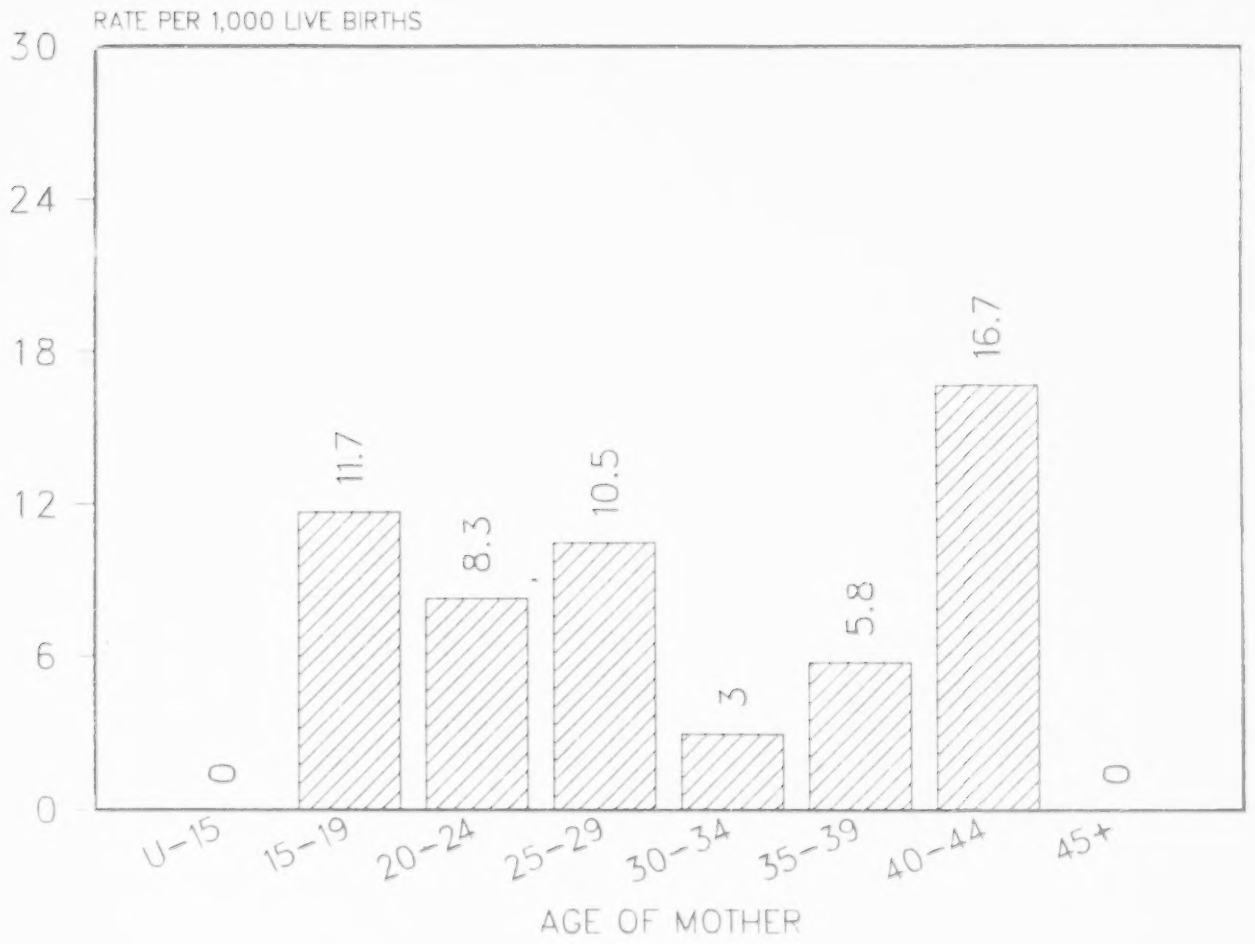


Table 2.17
Resident Infant Deaths and Infant Death Rates
by Age of Mother and Race of Infant
North Dakota, 1986

Age of Mother	Race of Infant							
	All Races		White		Native American		Other Races	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Under 15 Years	--	--	--	--	--	--	--	--
15-19 Years	10	11.7	8	12.6	2	9.6	--	--
20-24 Years	27	8.3	24	8.4	3	8.7	--	--
25-29 Years	43	10.5	38	10.2	5	18.2	--	--
30-34 Years	6	3.0	6	3.2	--	--	--	--
35-39 Years	3	5.8	3	6.6	--	--	--	--
40-44 Years	1	16.7	1	19.6	--	--	--	--
45 Years and Over	--	--	--	--	--	--	--	--
Total	90	8.3	80	8.3	10	10.2	0	0.0

Infant death rates displayed a parabolic relationship with mother's age. These rates were higher for infants born to younger and older mothers. In addition, Native American infants had slightly higher infant mortality rates than those of white and other race infants.

Table 2.18 and Figure 2.20 show the variation in infant death rates according to number of prenatal visits. The highest infant death rates were to mothers having no visits (19.2) and 1-4 prenatal visits (45.0).

Table 2.19 and Figure 2.21 depict infant death rates as they relate to trimester prenatal care began. Infants whose mothers had no prenatal care and those who initiated prenatal care in the third trimester experienced the highest infant death rates, 19.2 and 17.5, respectively.

The majority of infant deaths were attributable to three major causes: "sudden death - cause unknown" (21 deaths), "congenital anomalies" (20 deaths), and "other respiratory conditions of the newborn" (11 deaths) (Table 2.20 and Figure 2.22).

Table 2.18
Resident Infant Deaths and Infant Death Rates
by Prenatal Visits and Race of Mother
North Dakota, 1986

Number of Prenatal Visits	Race of Mother							
	All Races		White		Native American		Other Races	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
None	1	19.2	1	27.8	--	--	--	--
1-4	19	45.0	14	46.5	5	42.0	--	--
5-9	41	10.9	37	11.0	4	11.0	--	--
10-14	22	4.0	21	4.1	1	3.8	--	--
15-19	5	5.8	5	6.4	--	--	--	--
20+	--	--	--	--	--	--	--	--
Not Stated	2	--	2	--	--	--	--	--
Total	90	8.3	80	8.2	10	12.1	0	0.0

Table 2.19
Resident Infant Deaths and Infant Death Rates
by Trimester Prenatal Care Began and Race of Mother
North Dakota Infants, 1986

Trimester Prenatal Care Began	Race of Mother							
	All Races		White		Native American		Other Races	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
None	1	19.2	1	27.8	--	--	--	--
First	66	7.6	61	7.6	5	9.7	--	--
Second	13	8.0	10	7.3	3	14.2	--	--
Third	4	17.5	2	12.5	2	30.8	--	--
Not Stated	6	--	6	--	--	--	--	--
Total	90	8.3	80	8.2	10	12.1	0	0.0

Figure 2.20
Resident Infant Death Rates by Prenatal Visits
North Dakota, 1986

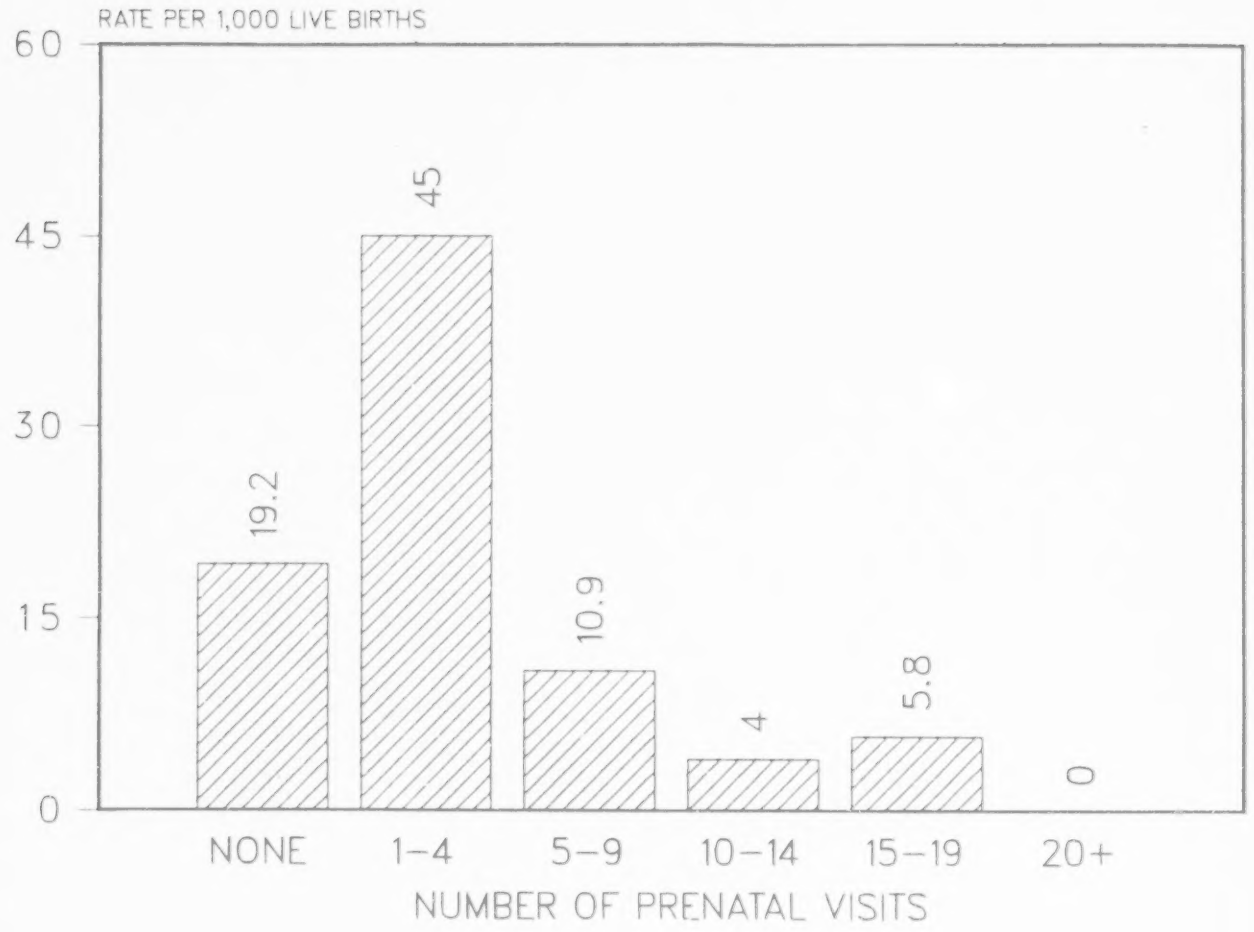


Figure 2.21
Resident Infant Death Rates
by Trimester Prenatal Care Began
North Dakota, 1986

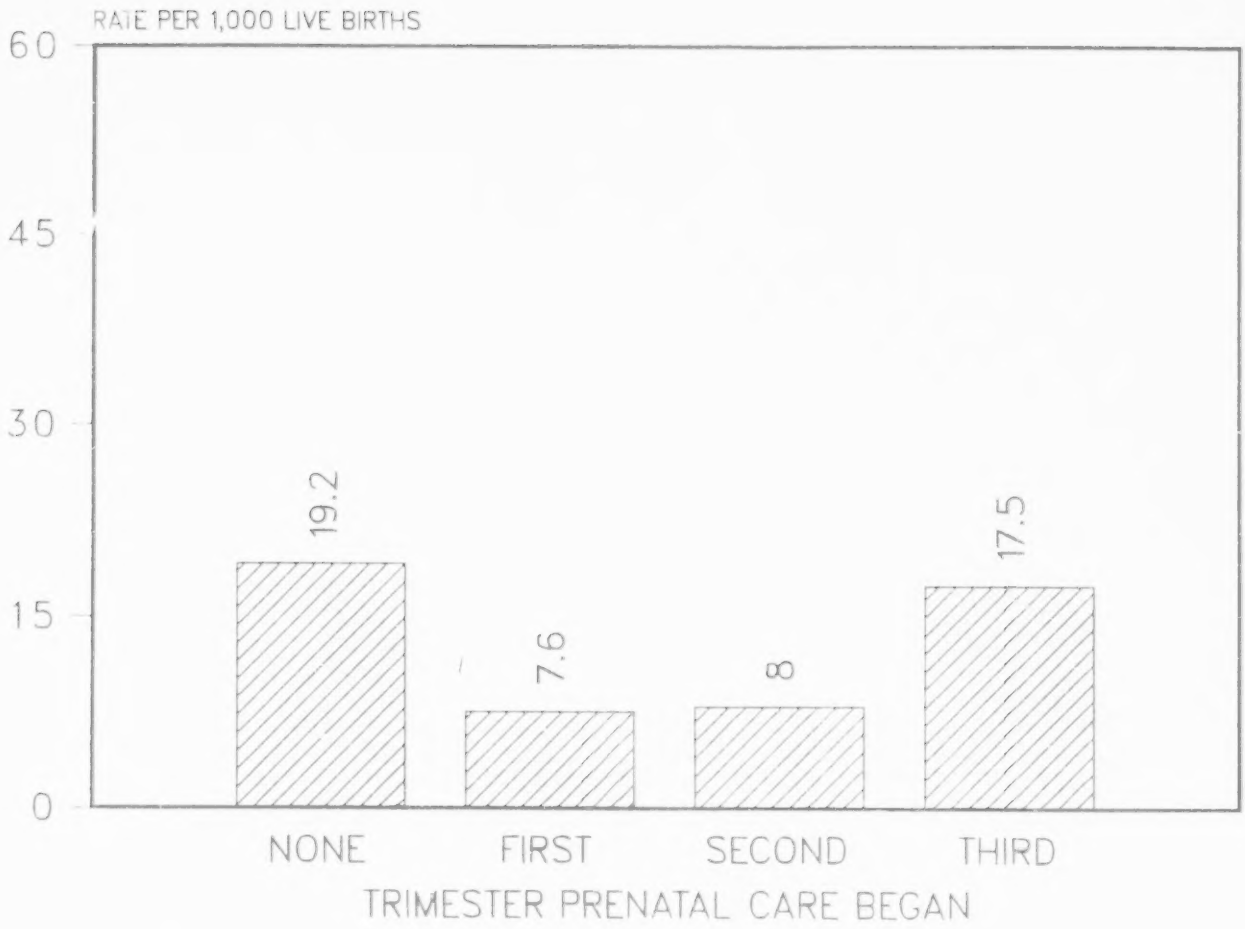
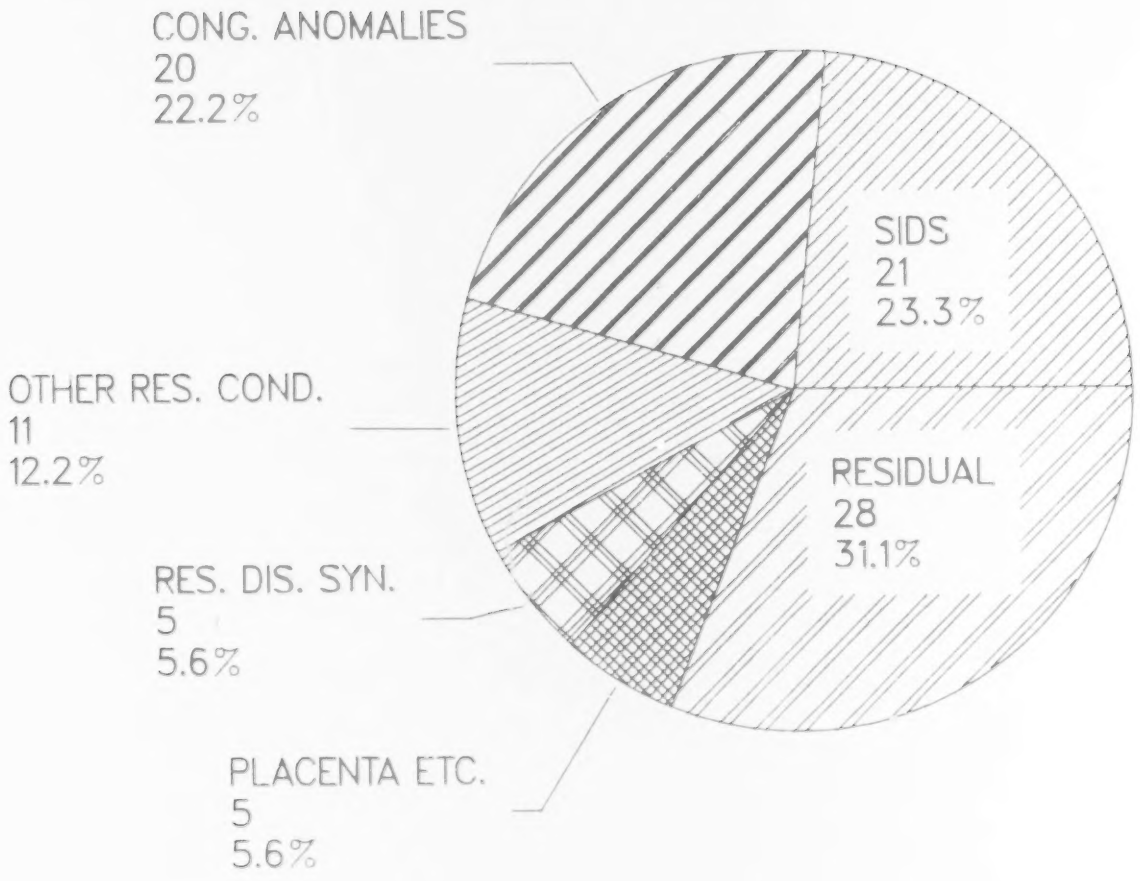


Table 2.20
Resident Infant Deaths by Cause of Death
North Dakota, 1986

ICDA Code	Cause of Death	Frequency
230-234	Carcinoma in Situ	1
270-279	Other Metabolic and Immunity Disorders	2
330-337	Hereditary and Degenerative Diseases of the Central Nervous System	3
340-349	Other Disorders of the Central Nervous System	1
390-398, 402, 404-429	Diseases of the Heart	2
460-466	Acute Respiratory Infections	1
480-487	Influenza and Pneumonia	1
510-519	Other Diseases of the Respiratory System	2
555-558	Noninfective Enteritis and Colitis	1
580-589	Nephritis and Nephrosis	2
740-759	Congenital Anomalies	20
761	Fetus or Newborn Affected by Maternal Complications of Pregnancy	1
762	Fetus or Newborn Affected by Complications of Placenta, Cord, and Membranes	5
765	Disorders Relating to Short Gestation and Unspecified Low Birth Weight	3
767	Birth Trauma	1
768	Intrauterine Hypoxia and Birth Asphyxia	1
769	Respiratory Distress Syndrome	5
770	Other Respiratory Conditions of Fetus or Newborn	11
771	Infections Specific to the Perinatal Period	3
779	Other Ill-Defined Conditions Originating in the Perinatal Period	1
798	Sudden Death, Cause Unknown	21
799	Other Ill-Defined and Unknown Causes of Death	1
910-915	Accidents Caused by Submersion, Suffocation, and Foreign Bodies	1
	Total	90

Figure 2.22
Resident Infant Deaths by Cause of Death
North Dakota, 1986



Fetal Deaths

In 1986, 69 resident fetal deaths were reported in North Dakota. The largest and smallest corresponding number of fetal deaths were experienced in 1961 and 1985, respectively (Figure 2.23 and Table 2.21).

Since 1960 the fetal death ratio, which relates fetal deaths to live births, has generally been declining both nationally and within North Dakota. The largest reported state ratio was 13.8 experienced in 1966, while the smallest corresponding ratio was 5.3 reported in 1985 (Figure 2.24 and Table 2.21).

Figure 2.23
Resident Fetal Deaths
North Dakota, 1960-1986

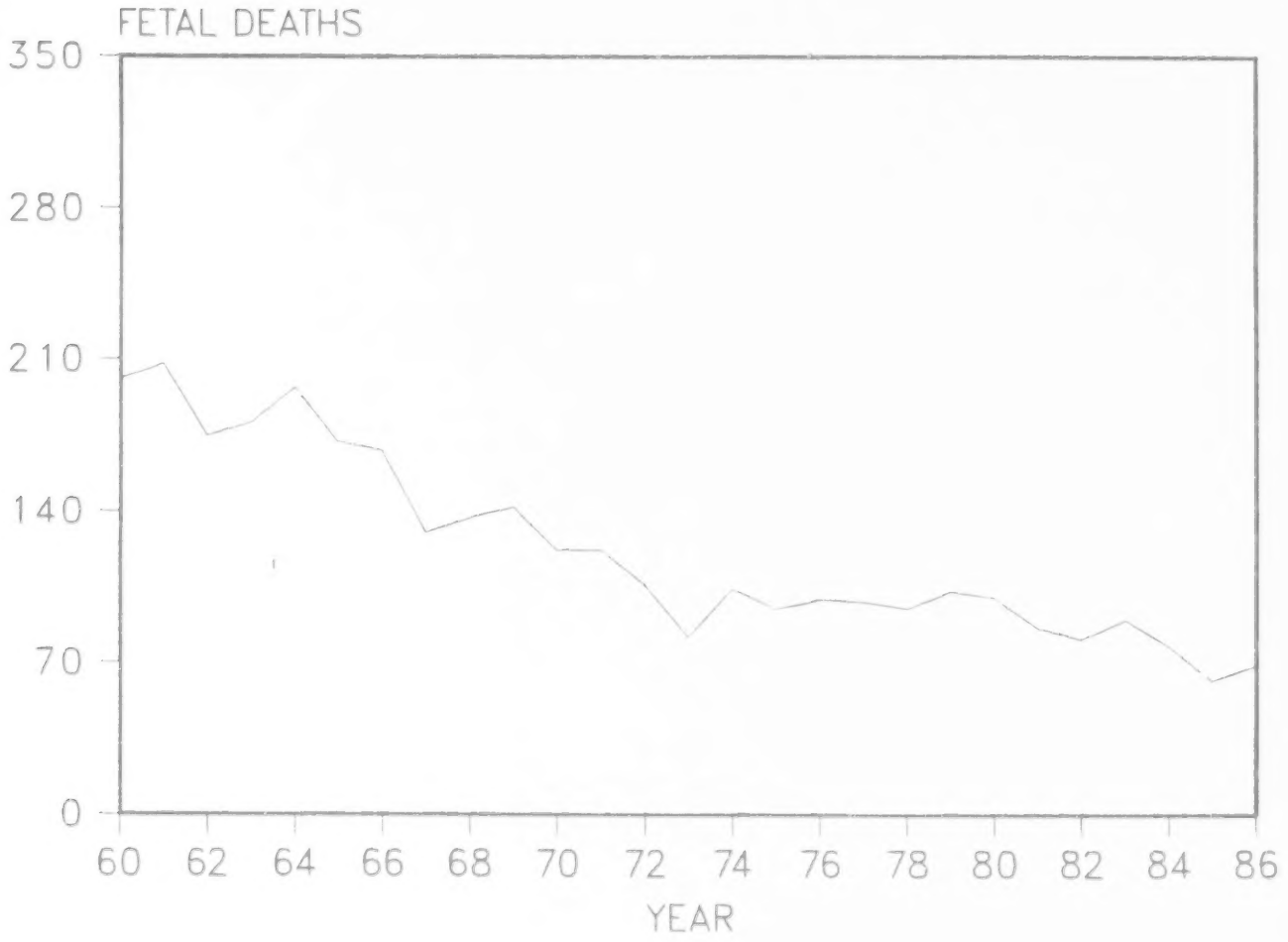
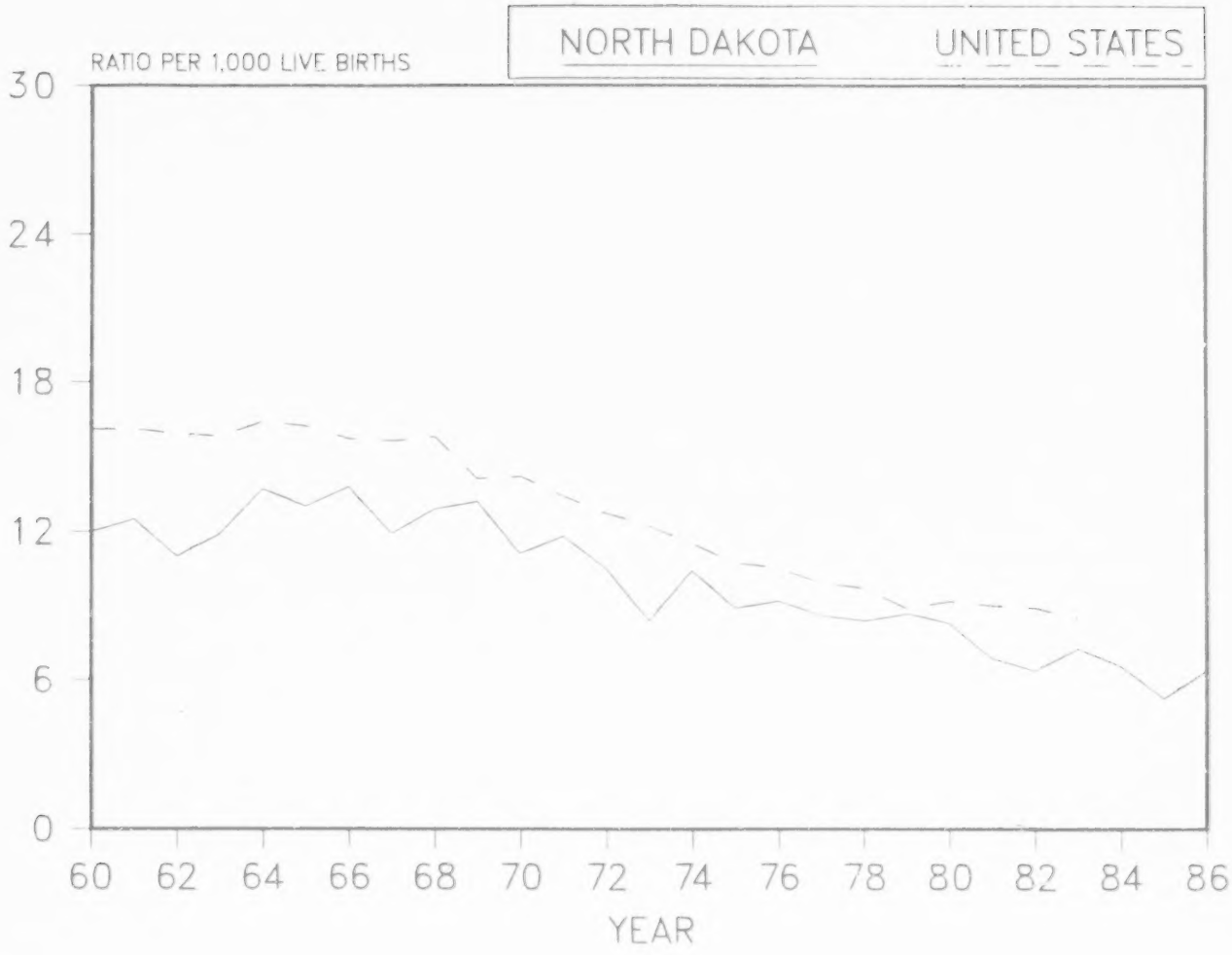


Table 2.21
Resident Fetal Deaths and Fetal Death Ratios
North Dakota and United States
1960-1986

Year	United States		North Dakota	
	Fetal Deaths	Fetal Death Ratios	Fetal Deaths	Fetal Death Ratios
1960	68,480	16.1	201	12.0
1961	68,767	16.1	208	12.5
1962	66,421	15.9	175	11.0
1963	64,640	15.8	181	11.9
1964	65,931	16.4	197	13.7
1965	60,859	16.2	172	13.0
1966	56,637	15.7	168	13.8
1967	54,934	15.6	130	11.9
1968	55,293	15.8	137	12.9
1969	50,749	14.1	142	13.2
1970	52,961	14.2	122	11.1
1971	47,818	13.4	122	11.8
1972	41,380	12.7	106	10.5
1973	38,309	12.2	82	8.4
1974	36,281	11.5	104	10.4
1975	33,796	10.7	95	8.9
1976	33,111	10.5	99	9.2
1977	33,053	9.9	98	8.6
1978	32,301	9.7	95	8.4
1979	30,969	8.9	103	8.7
1980	33,353	9.2	100	8.3
1981	32,596	9.0	86	6.9
1982	32,694	8.9	81	6.4
1983	30,752	8.5	90	7.3
1984	--(1)	--	78	6.6
1985	--(1)	--	62	5.3
1986	--(1)	--	69	6.4

(1) Not Available

Figure 2.24
Resident Fetal Death Ratios
North Dakota and United States
1960-1986



Causes of Fetal Deaths

A classification of fetal deaths by underlying cause is contained in Table 2.22. Due to a relatively large number of deaths allocated to "other and ill-defined conditions" (31.9 percent), caution should be used when attempting to draw specific inferences regarding cause of death.

In 1986 more than 40 percent of the fetal deaths were attributed to one general condition, "complications of the placenta, cord, and membranes." There were 29 fetal deaths due to this condition for a ratio of 267.9 per 100,000 resident live births.

Table 2.22
Resident Fetal Deaths by
Cause of Death and Cause-Specific Ratios(1)
North Dakota, 1986

ICD Code	Cause of Death	Frequency	Ratio
740	Anencephalus and Similar Anomalies	1	9.2
742	Other Congenital Anomalies of the Nervous System	1	9.2
747	Other Congenital Anomalies of the Circulatory System	1	9.2
753	Congenital Anomalies of the Urinary System	1	9.2
758	Chromosomal Anomalies	1	9.2
759	Other and Unspecified Congenital Anomalies	4	37.0
760	Fetus Affected by Maternal Conditions Which May be Unrelated to Present Pregnancy	3	27.7
761	Fetus Affected by Maternal Complications of Pregnancy	5	46.2
762	Fetus Affected by Complications of Placenta, Cord, and Membranes	29	267.9
771	Infections Specific to the Perinatal Period	1	9.2
779	Other and Ill-Defined Conditions Originating in the Perinatal Period	22	203.3
	Total	69	637.5

(1) Ratios Computed Per 100,000 Live Births

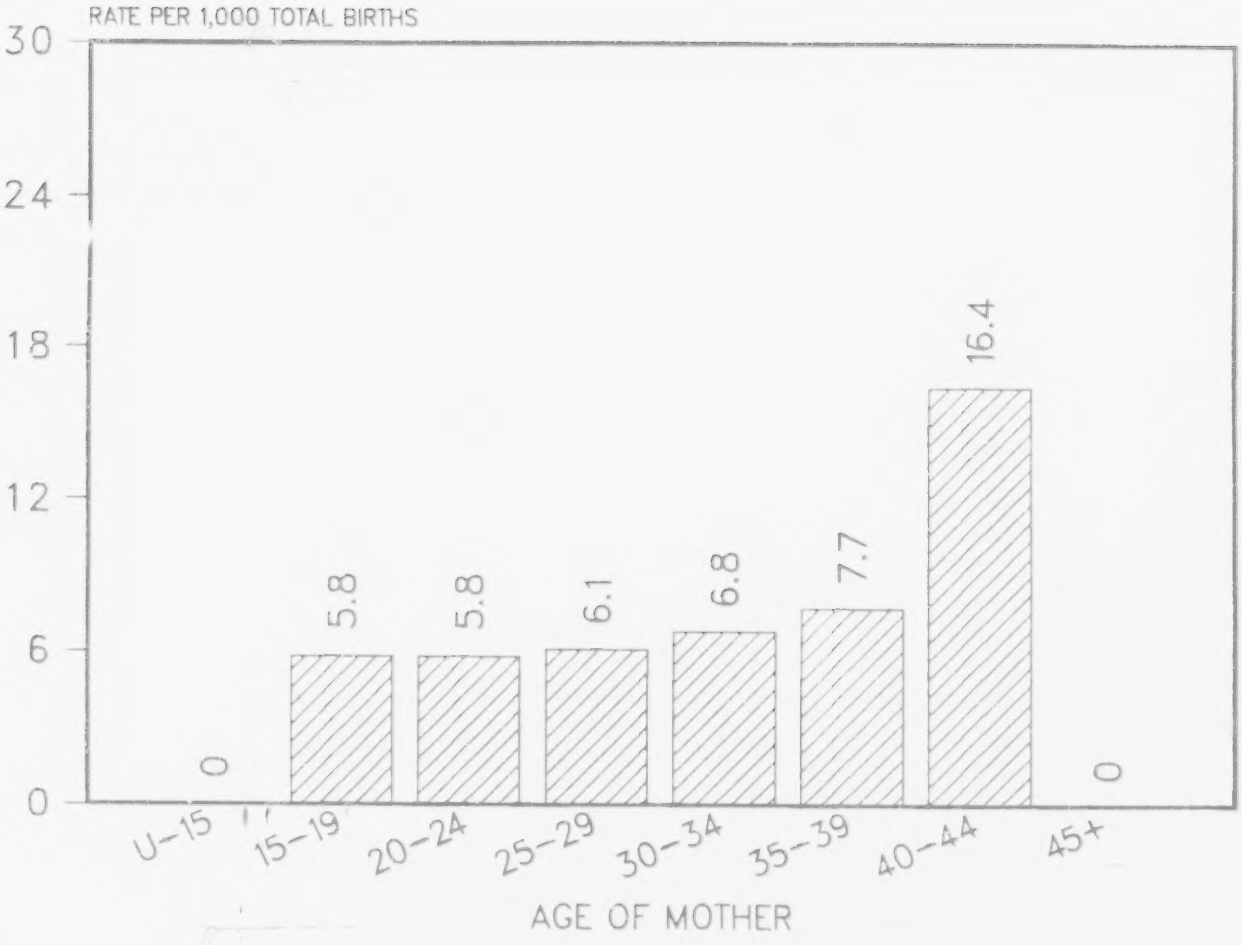
Age of Mother and Race of Fetus

The overall fetal death rate per 1,000 total births (live births plus fetal deaths) was 6.3 in 1986. The rates associated with white, Native American, and other races fetuses were 6.2, 9.1, and 0.0, respectively. Fetal death rates displayed somewhat of a linear relationship with respect to mother's age. Associated rates were generally higher as the age of the female increased. Table 2.23 and Figure 2.25 depicts this relationship.

Table 2.23
Resident Fetal Deaths and Fetal Death Rates
by Age of Mother and Race of Fetus
North Dakota, 1986

Age of Mother	Race of Fetus							
	All Races		White		Native American		Other Races	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Under 15 Years	--	--	--	--	--	--	--	--
15-19 Years	5	5.8	2	3.1	3	14.2	--	--
20-24 Years	19	5.8	16	5.6	3	8.6	--	--
25-29 Years	25	6.1	22	5.9	3	10.8	--	--
30-34 Years	14	6.8	14	7.3	--	--	--	--
35-39 Years	4	7.7	4	8.7	--	--	--	--
40-44 Years	1	16.4	1	19.2	--	--	--	--
45 Years and Over	--	-	--	--	--	--	--	--
Not Stated	1	--	1	--	--	--	--	--
Total	69	6.3	60	6.2	9	9.1	0	0.0

Figure 2.25
Resident Fetal Death Rates by Age of Mother
North Dakota, 1986



Prenatal Care - Fetal Deaths

Of the 69 fetal deaths recorded in 1986, 12 (17.4 percent) of the records indicated that the mother had less than 5 prenatal visits, while 13 (18.8 percent) began prenatal care in the third trimester or did not report any prenatal care (Tables 2.24 and 2.25 and Figures 2.26 and 2.27).

Table 2.24
Resident Fetal Deaths and Fetal Death Rates
by Number of Prenatal Visits and Race of Mother
North Dakota, 1986

Number of Prenatal Visits	Race of Mother							
	All Races		White		Native American		Other Races	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
None	1	18.9	1	27.0	--	--	--	--
1-4	11	25.4	8	25.9	3	24.6	--	--
5-9	33	8.7	30	8.8	3	8.2	--	--
10-14	11	2.0	9	1.8	2	7.5	--	--
15-19	2	2.3	2	2.5	--	--	--	--
20+	--	--	--	--	--	--	--	--
Not Stated	11	--	10	--	1	--	--	--
Total	69	6.3	60	6.1	9	10.8	0	0.0

Table 2.25
Resident Fetal Deaths and Fetal Death Rates
by Trimester Prenatal Care Began and Race of Mother
North Dakota, 1986

Trimester Prenatal Care Began	Race of Mother							
	All Races		White		Native American		Other Races	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
None	1	18.9	--	--	1	62.5	--	--
First	47	5.4	43	5.3	4	7.7	--	--
Second	6	3.7	3	2.2	3	14.0	--	--
Third	12	50.0	11	64.3	1	15.1	--	--
Not Stated	3	--	3	--	--	--	--	--
Total	69	6.3	60	6.1	9	10.8	0	0.0

Figure 2.26
Resident Fetal Death Rates by
Number of Prenatal Visits
North Dakota, 1986

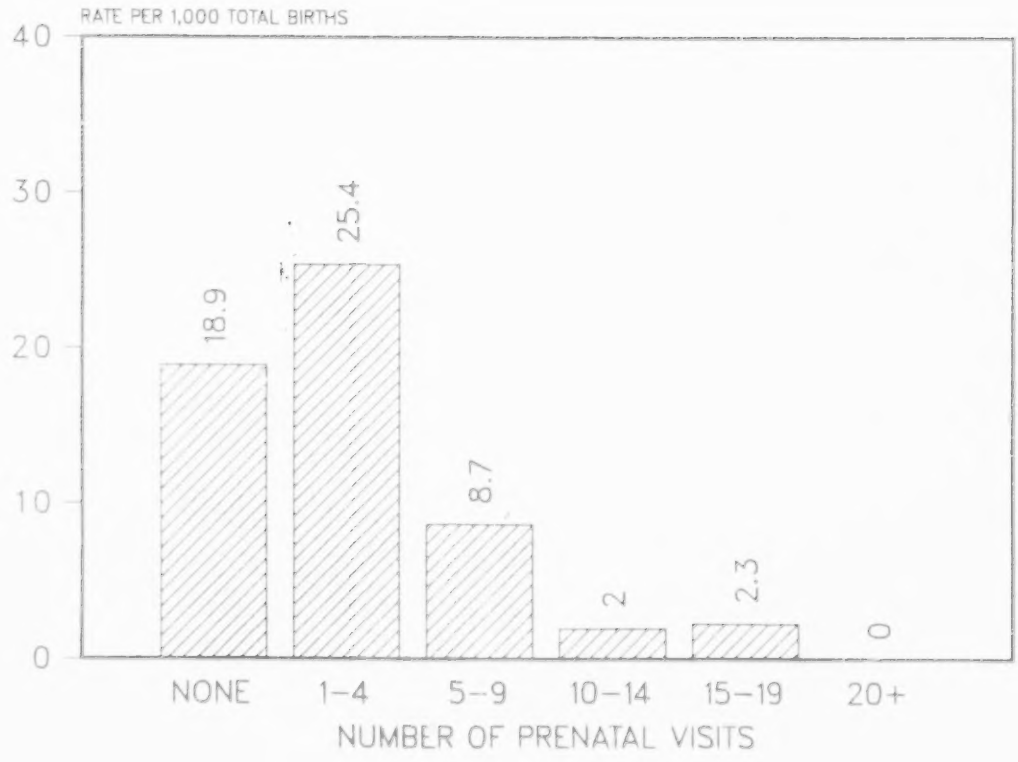
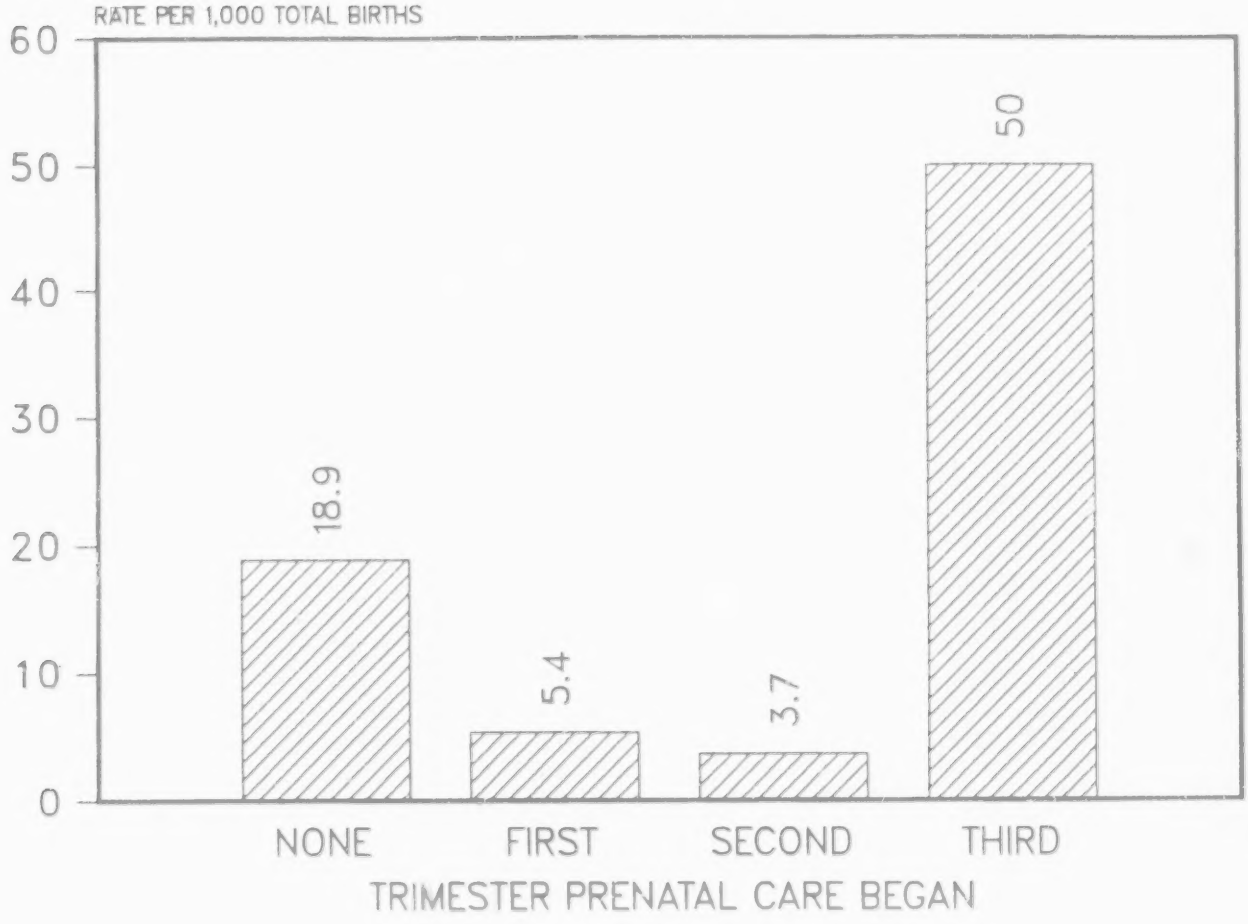


Figure 2.27
Resident Fetal Death Rates
by Trimester Prenatal Care Began
North Dakota, 1986



MARRIAGE and DIVORCE

Marriage and Divorce:
An Overview 1986

Total Marriages	5,148
Marriage Rate	7.6
Total Divorces and Annulments	2,261
Divorce Rate	3.3
Median Duration of Marriage at Divorce	7.1

Marriage and Divorce

The number of marriages and divorces occurring annually in North Dakota has increased substantially since 1960. The smallest number of marriages during the 1960 to 1986 time period was 4,041 in 1960, while the largest number was 6,204 reported in 1981. The smallest and largest numbers of divorces and annulments were witnessed in 1960 (596) and 1983 (2,336) (Figures 3.1 and 3.2, and Tables 3.1 and 3.2).

Figure 3.1
Marriages
North Dakota Occurrences
1960-1986

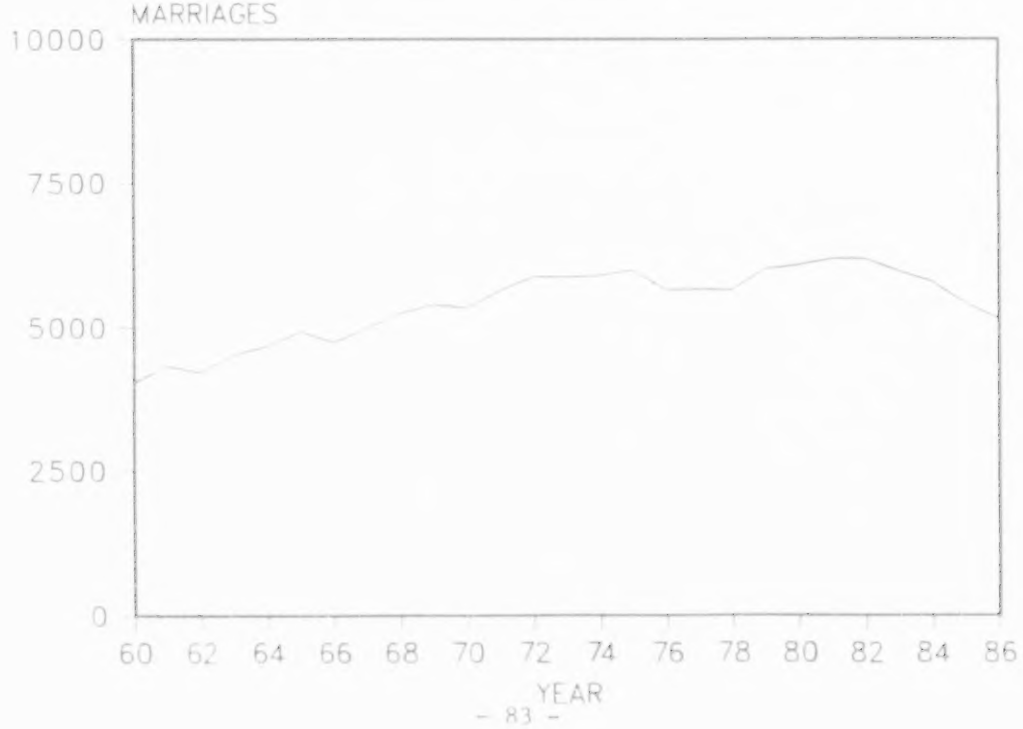


Figure 3.2
Divorces and Annulments
North Dakota Occurrences
1960-1986

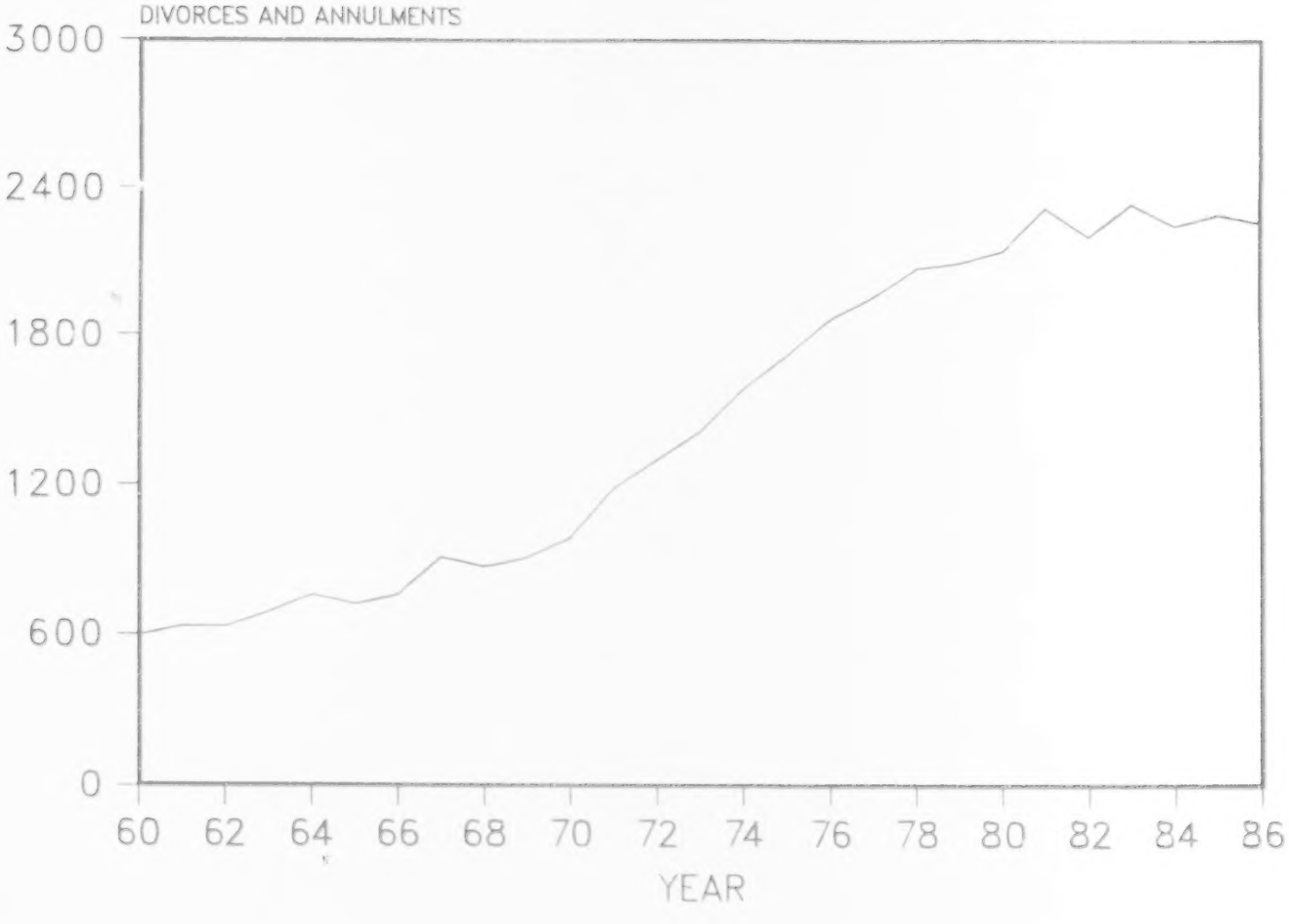


Table 3.1
Marriages and Marriage Rates
North Dakota and United States Occurrences
1960-1986

Year	United States		North Dakota	
	Number	Rate	Number	Rate
1960	1,523,000	8.5	4,041	6.4
1961	1,548,000	8.4	4,335	6.8
1962	1,577,000	8.5	4,212	6.6
1963	1,654,000	8.8	4,531	7.0
1964	1,725,000	9.0	4,675	7.2
1965	1,800,000	9.3	4,939	7.6
1966	1,857,000	9.5	4,740	7.3
1967	1,927,000	9.7	4,990	7.9
1968	2,069,000	10.4	5,251	8.4
1969	2,145,000	10.6	5,399	8.8
1970	2,158,802	10.5	5,340	8.6
1971	2,190,481	10.5	5,648	9.0
1972	2,282,154	10.9	5,886	9.3
1973	2,284,108	10.8	5,874	9.3
1974	2,229,667	10.4	5,905	9.3
1975	2,152,662	10.0	5,993	9.4
1976	2,154,807	9.9	5,649	8.7
1977	2,178,367	9.9	5,668	8.7
1978	2,282,272	10.3	5,651	8.7
1979	2,331,337	10.4	6,022	9.2
1980	2,390,252	10.5	6,093	9.3
1981	2,422,145	10.5	6,204	9.4
1982	2,495,000(1)	10.8	6,195	9.2
1983	2,444,000(1)	10.5	5,976	8.8
1984	2,487,000(1)	10.5	5,796	8.4
1985	2,425,000(1)	10.1	5,424	7.9
1986	2,400,000(1)	10.0	5,148	7.6

(1) U.S. Estimate

Table 3.2
Divorces and Annulments
and Divorce and Annulment Rates
North Dakota and United States
1960-1986

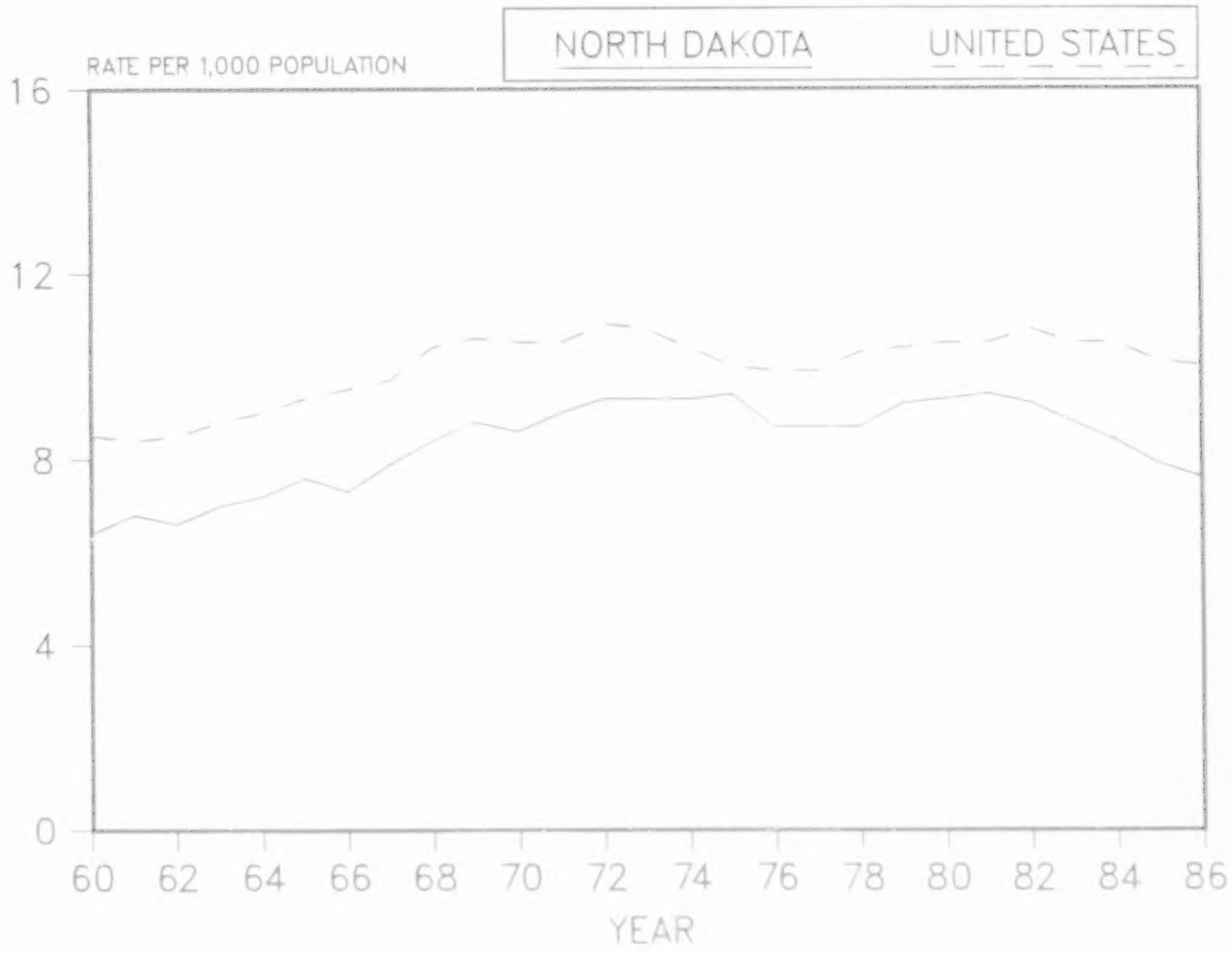
Year	United States		North Dakota	
	Number	Rate	Number	Rate
1960	393,000	2.2	596	0.9
1961	414,000	2.3	633	1.0
1962	413,000	2.2	631	1.0
1963	428,000	2.3	689	1.1
1964	450,000	2.4	758	1.2
1965	479,000	2.5	720	1.1
1966	499,000	2.5	759	1.2
1967	523,000	2.6	909	1.4
1968	584,000	2.9	868	1.4
1969	639,000	3.2	908	1.5
1970	708,000	3.5	985	1.6
1971	773,000	3.7	1,181	1.9
1972	845,000	4.0	1,298	2.1
1973	915,000	4.3	1,409	2.2
1974	977,000	4.6	1,578	2.5
1975	1,036,000	4.8	1,714	2.7
1976	1,083,000	5.0	1,861	2.9
1977	1,091,000	5.0	1,952	3.0
1978	1,130,000	5.1	2,071	3.2
1979	1,181,000	5.2	2,095	3.2
1980	1,189,000	5.2	2,142	3.3
1981	1,213,000	5.3	2,319	3.5
1982	1,170,000	5.0	2,202	3.3
1983	1,158,000	4.9	2,336	3.4
1984	1,169,000	5.0	2,249	3.3
1985	1,187,000(1)	5.0	2,295	3.4
1986	1,159,000(1)	4.8	2,261	3.3

(1) U.S. Estimate

Marriage

Since 1960 there have been noticeable shifts in marriage rates nationally and in North Dakota (Figure 3.3). The marriage rates observed for this state have generally followed the pattern of rising and falling rates observed nationally. The number of persons married each year per 1,000 population was higher nationally than in the state for each reporting time period, i.e., 1960-1986. The highest marriage rate reported in North Dakota was 9.4 in 1975 and 1981, while the lowest was 6.4 in 1960.

Figure 3.3
Marriage Rates
North Dakota and United States Occurrences
1960-1986



Age at Marriage

Examination of Table 3.3 indicates that during 1986 females married at younger ages than did males. Nearly three and one-half times the number of females married under the age of 20, compared to their male counterparts, while in the 25 and older age groups males married more frequently than females. The median age for brides in 1986 was 24, while the median for grooms was 26.

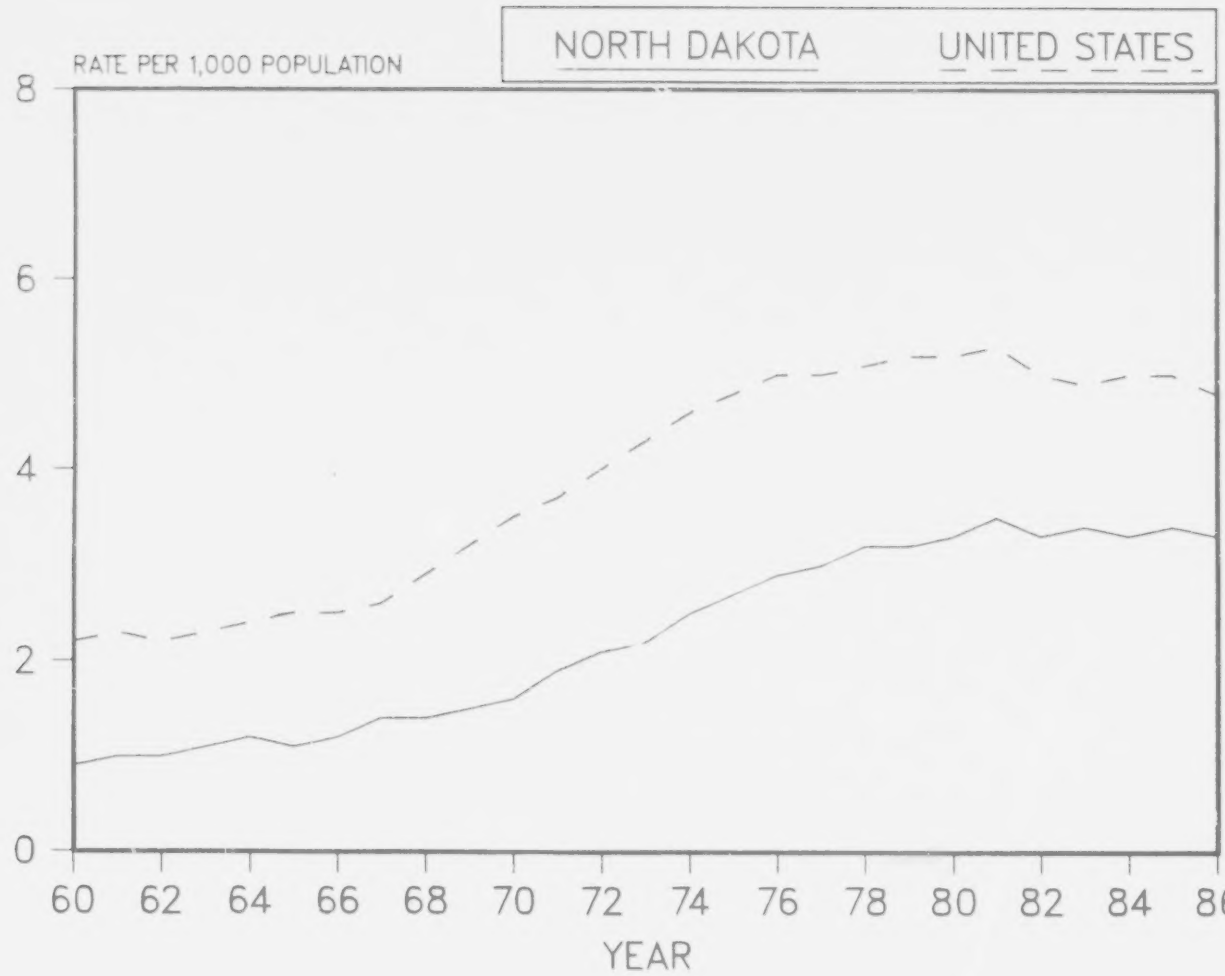
Table 3.3
Marriages by Age and Sex
North Dakota Occurrences
1986

Ages	Number of Marriages	
	Males	Females
Under 20 Years	202	701
20-24 Years	2,079	2,300
25-29 Years	1,462	1,132
30-39 Years	926	677
40-49 Years	245	178
50-59 Years	109	65
60-69 Years	63	62
70 Years and Over	62	33
Not Stated	--	--
Total	5,148	5,148
Median Age	26	24

Divorce and Annulment

During the 1960-1986 time period North Dakota and United States divorce and annulment rates followed a similar pattern, one of significant growth (Figure 3.4). Although the pattern has been nearly identical, nationwide rates have been consistently higher than corresponding state divorce and annulment rates. Since 1960 the lowest divorce and annulment rate was reported in 1960 (0.9), while the highest similar state rate was in 1981 (3.5).

Figure 3.4
Divorce and Annulment Rates
North Dakota and United States Occurrences
1960-1986



Duration of Marriage at Divorce

The median duration of marriage at divorce was 7.1 years in 1986. The largest percentage of divorces and annulments occurred in the 1-4 year cohort (Table 3.4).

Minor Children of Divorced Couples

The number of children under 18 affected by divorces in 1986 was 2,473 (Table 3.5), while the average number of children per divorce was 1.1.

Table 3.4
Divorces and Annulments by Duration of Marriage
North Dakota Occurrences
1986

Duration in Years	Frequency	Percent
Under 1 Year	78	3.4
1-4 Years	795	35.2
5-9 Years	627	27.7
10-14 Years	340	15.0
15-19 Years	175	7.7
20-24 Years	97	4.3
25-29 Years	60	2.7
30-34 Years	41	1.8
35-39 Years	31	1.4
40-49 Years	15	0.7
50 Years and Over	1	0.0
Not Stated	1	0.0
Total	2,261	100.0
Median Duration	7.1 Years	

Table 3.5
Divorces by Children Affected
North Dakota Occurrences
1986

Children Affected	Frequency	Percent
0	887	39.3
1	595	26.4
2	527	23.3
3	192	8.5
4	40	1.8
5 or More	16	0.7
Not Stated	1	0.0
Total Divorces	2,258	100.0
Total Children Affected	2,473	N/A

INDUCED TERMINATIONS

Induced Terminations of Pregnancy:
An Overview 1986

Total Induced Terminations (Occurrences)	2,664
Total Induced Terminations (Residents)	1,353

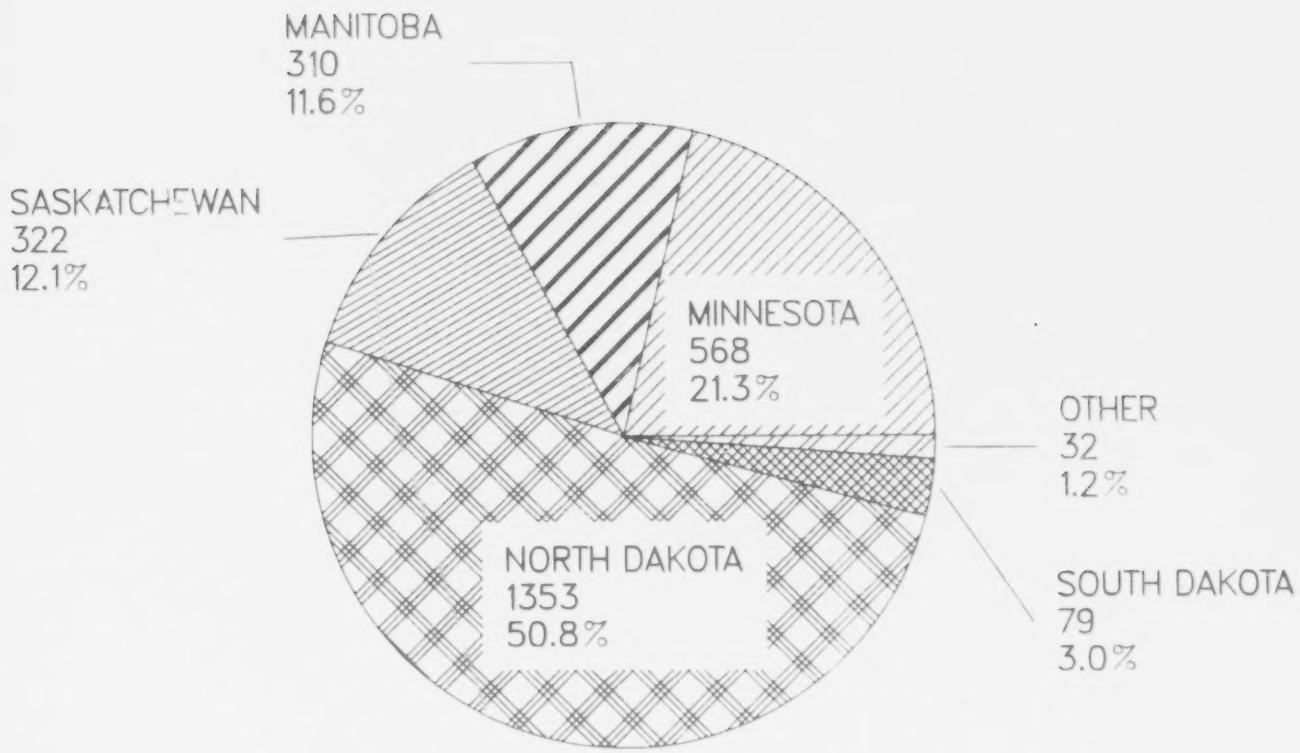
Induced Terminations

In 1986, 2,664 induced terminations were reported in North Dakota. Approximately 51 percent of these terminations were state residents (Table 4.1 and Figure 4.1). Of the nonresident induced terminations occurring in the state, about 68 percent were residents of Minnesota or the Province of Saskatchewan, Canada.

Table 4.1
Induced Termination Occurrences
by State of Residence
North Dakota, 1986

Geographic Area	Number	Percent
North Dakota	1,353	50.8
Minnesota	568	21.3
South Dakota	79	3.0
Manitoba	310	11.6
Saskatchewan	322	12.1
Other Areas	32	1.2
Total	2,664	100.0

Figure 4.1
Induced Termination Occurrences
by State of Residence
North Dakota, 1986



Age and Race of Female

In 1986, 37.6 percent of all resident induced terminations were to women ages 20-24, while 27.3 percent were women ages 15-19 (Table 4.2).

Other Social Characteristics

Tables 4.3 and 4.4 portray age of woman by marital status and education of woman, respectively. Approximately 79 percent of all North Dakota residents having induced terminations were not married at the time of the termination. Regarding education, 49.4 percent of the women were educated at the level grades 10-12, while 45.0 percent were educated within the level 1-4 years of college.

Table 4.2
Resident Induced Terminations
by Age and Race of Female
North Dakota, 1986

Age of Female	Total		White		Native American		Other	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Under 15 Years	5	0.4	4	0.3	1	2.6	--	--
15-19 Years	370	27.3	349	27.4	13	33.3	8	19.5
20-24 Years	509	37.6	480	37.7	15	38.5	14	34.1
25-29 Years	254	18.8	237	18.6	9	23.1	8	19.5
30-34 Years	133	9.8	128	10.1	1	2.6	4	9.8
35-39 Years	69	5.1	62	4.9	--	--	7	17.1
40-44 Years	13	1.0	13	1.0	--	--	--	--
45 Years and Over	--	--	--	--	--	--	--	--
Total	1,353	100.0	1,273	100.0	39	100.0	41	100.0

Table 4.3
Resident Induced Terminations
by Age and Marital Status of Female
North Dakota, 1986

Age of Female	Total	Married	Not Married
Under 15 Years	5	--	5
15-19 Years	370	10	360
20-24 Years	509	71	438
25-29 Years	254	85	169
30-34 Years	133	69	64
35-39 Years	69	33	36
40-44 Years	13	12	1
45 Years and Over	--	--	--
Total	1,353	280	1,073

Table 4.4
Resident Induced Terminations by
Age and Education of Female
North Dakota, 1986

Age of Female	Total	Grades 1-9	Grades 10-12	1-4 Years of College	5+ Years of College	Not Stated
Under 15 Years	5	4	1	--	--	--
15-19 Years	370	21	267	78	--	4
20-24 Years	509	4	205	289	8	3
25-29 Years	254	5	108	133	6	2
30-34 Years	133	--	57	68	7	1
35-39 Years	69	3	26	35	5	--
40-44 Years	13	--	5	6	2	--
45 Years and Over	--	--	--	--	--	--
Total	1,353	37	669	609	28	10

Other General Characteristics

Of the induced terminations reported in North Dakota, suction curettage was the primary procedure utilized in nearly all reported pregnancy terminations (Table 4.5).

Complications of termination were reported in 9 (0.7 percent) of the state's 1,353 resident induced terminations (Table 4.6).

Table 4.7 depicts resident induced terminations by age of woman and gestation period. The median gestation period for induced terminations was approximately 8 weeks.

Table 4.5
Resident Induced Terminations
by Age of Female and Primary Procedure
North Dakota, 1986

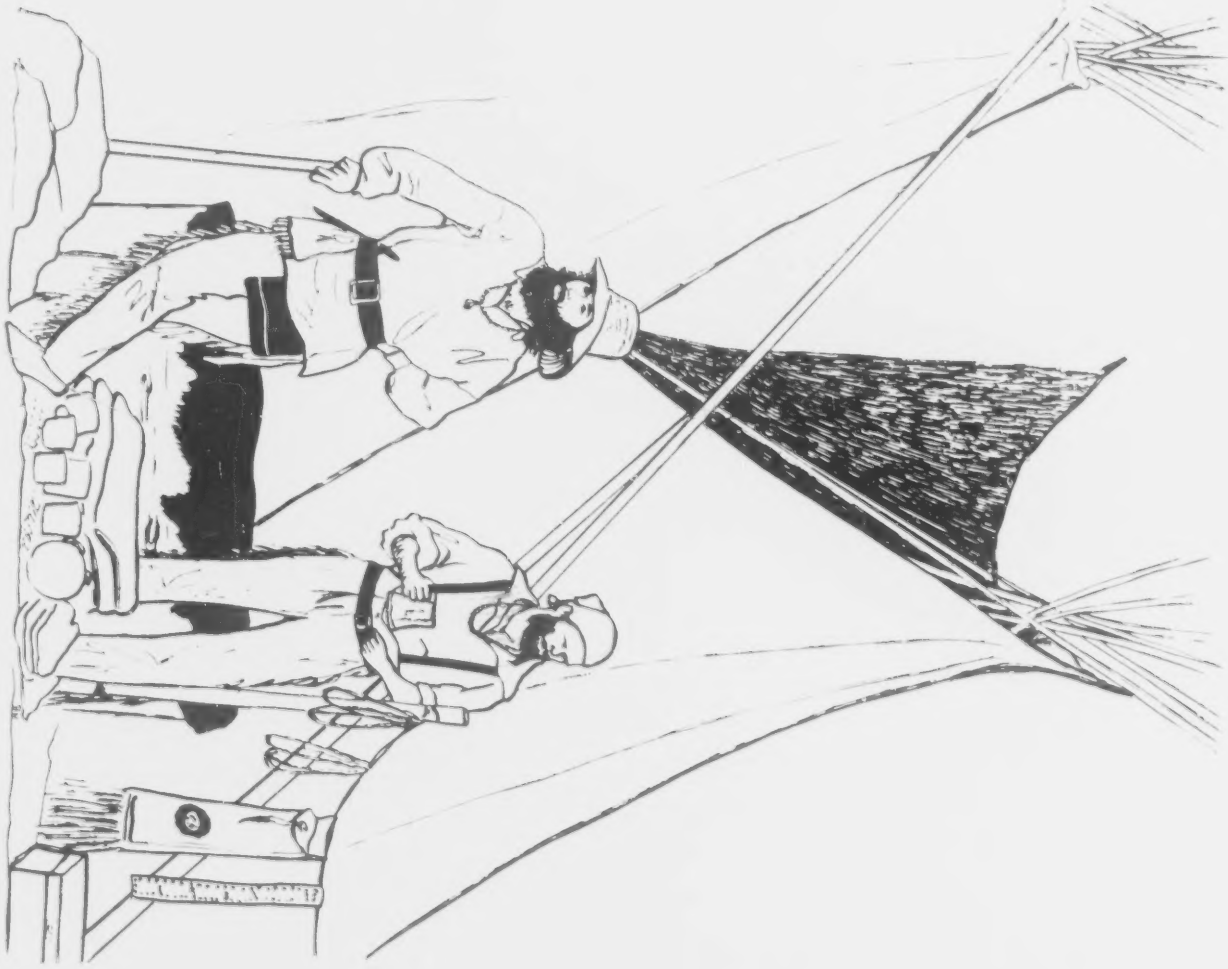
Age of Female	Total	Suction Curettage	Other
Under 15 Years	5	5	--
15-19 Years	370	369	1
20-24 Years	509	509	--
25-29 Years	254	254	--
30-34 Years	133	132	1
35-39 Years	69	69	--
40-44 Years	13	13	--
45 Years and Over	--	--	--
Total	1,353	1,351	2

Table 4.6
Resident Induced Terminations by
Age of Female and Complications of Termination
North Dakota, 1986

Age of Female	Total	None	Hemorrhage	Infection	Uterine Perforation	Retained Products	Not Stated
Under 15 Years	5	5	--	--	--	--	--
15-19 Years	370	369	1	--	--	--	--
20-24 Years	509	508	--	--	--	--	1
25-29 Years	254	246	--	4	1	2	1
30-34 Years	133	133	--	--	--	--	--
35-39 Years	69	69	--	--	--	--	--
40-44 Years	13	12	1	--	--	--	--
45 Years and Over	--	--	--	--	--	--	--
Total	1,353	1,342	2	4	1	2	2

Table 4.7
Resident Induced Terminations by
Age of Female and Gestation Period
North Dakota, 1986

Age of Female	Gestation					
	Total	1-4 Weeks	5-8 Weeks	9-12 Weeks	13 Weeks and Over	Not Stated
Under 15 Years	5	--	2	2	1	--
15-19 Years	370	2	215	129	24	--
20-24 Years	509	7	321	156	23	2
25-29 Years	254	7	179	57	10	1
30-34 Years	133	2	97	27	6	1
35-39 Years	69	--	55	11	3	--
40-44 Years	13	--	9	4	--	--
45 Years and Over	--	--	--	--	--	--
Total	1,353	18	878	386	67	4



APPENDIX

Table 5.1
Live Births and Deaths, North Dakota Residents;
Marriages and Divorces and Annulments,
North Dakota Occurrences, by County
1986

County	Births	Deaths	Marriages	Divorces and Annulments
Adams	64	47	18	11
Barnes	147	151	99	43
Benson	171	68	46	7
Billings	26	5	3	1
Bottineau	97	108	57	24
Bowman	63	44	25	8
Burke	34	40	22	5
Burleigh	940	347	538	227
Cass	1,563	567	834	366
Cavalier	81	91	43	10
Dickey	92	92	40	16
Divide	46	32	29	14
Dunn	80	35	24	18
Eddy	48	56	14	3
Emmons	62	59	38	--
Foster	55	58	27	15
Golden Valley	42	15	19	6
Grand Forks	1,277	397	649	308
Grant	51	48	17	7
Griggs	44	48	15	2
Hettinger	47	44	27	4
Kidder	31	32	23	8
LaMoure	76	76	19	7
Logan	29	27	13	2
McHenry	100	85	41	8
McIntosh	42	59	15	6
McKenzie	147	43	19	24
McLean	168	100	66	23
Mercer	205	55	81	35
Morton	365	192	159	61
Mountrail	129	78	60	13
Nelson	61	77	28	5
Oliver	39	6	7	2
Pembina	174	111	65	20
Pierce	79	77	34	11
Ramsey	178	130	118	38
Ransom	69	83	32	13
Renville	53	39	12	4
Richland	297	156	115	57
Rolette	324	98	38	8
Sargent	57	55	20	10
Sheridan	32	15	9	2
Sioux	99	36	44	1
Slope	20	7	4	--
Stark	413	155	229	100
Steele	38	22	16	2
Stutsman	347	192	172	98
Towner	74	45	27	13
Traill	98	118	39	43
Walsh	216	175	130	62
Ward	1,269	365	665	364
Wells	91	73	49	4
Williams	474	151	215	119
Total	10,824	5,285	5,148	2,258

Table 5.2
Resident Deaths by Age, Gender, and Selected Causes
North Dakota, 1986

Primary Cause of Death	Age at Death																			
	Under 1		1-4		5-14		15-24		25-34		35-44		45-54		55-64		65+		All Ages	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Tuberculosis	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1
Septicemia	--	--	--	--	--	--	--	--	--	--	1	1	1	--	1	1	11	12	14	14
All Other Infectious and Parasitic Diseases	--	--	--	--	--	--	--	--	--	--	--	1	1	2	--	1	10	6	11	10
Malignant Neoplasms	--	--	1	--	3	--	2	1	4	12	9	18	28	39	123	81	515	367	685	518
Benign Neoplasms	1	--	--	--	1	--	--	1	--	--	--	--	--	--	1	--	5	3	8	4
Diabetes	--	--	--	--	--	--	--	--	2	1	2	1	2	1	3	8	31	35	40	46
Nutritional Deficiencies	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	9	2	9
Anemias	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	1	5	7	6	8
Meningitis	--	--	--	--	1	--	--	--	--	1	--	--	--	--	--	--	--	--	1	1
Heart Disease	1	1	--	2	--	--	2	1	2	2	11	3	52	10	126	38	870	761	1064	818
Hypertension With or Without Renal Disease	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	7	12	8	12
Cerebrovascular Disease	--	--	--	--	--	--	--	1	--	3	1	4	4	4	11	8	170	204	186	224
Atherosclerosis	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	1	38	59	39	60
Other Arterial Disease	--	--	--	--	--	--	--	--	1	--	--	1	1	1	6	--	31	18	39	20
Influenza and Pneumonia	1	--	--	1	--	1	--	--	--	1	--	--	--	1	5	1	127	88	133	93
Chronic Obstructive Pulmonary Disease	--	--	--	--	2	--	--	--	--	--	--	--	1	5	12	6	133	39	148	50
Ulcer	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	1	9	12	9	14
Appendicitis	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1	--	2	--
Hernia	--	--	--	--	--	--	--	--	--	--	1	1	1	2	--	1	6	5	8	9
Cirrhosis	--	--	--	--	--	--	--	--	1	2	4	2	5	3	10	5	8	6	28	18
Cholelithiasis	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	4	3	5	3
Nephritis and Nephrosis	2	--	--	--	--	--	--	--	--	--	--	--	1	1	1	--	37	30	41	31
Kidney Infection	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	1	--	1	1
Prostate Hyperplasia	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	2	--
Congenital Anomalies	12	8	1	1	1	--	2	--	1	--	1	--	--	--	--	--	1	1	19	10
Perinatal Conditions	12	19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	12	19
Ill-Defined Conditions	13	9	1	--	--	--	1	--	2	--	--	--	1	--	3	--	26	55	47	64
All Other Diseases	6	4	1	--	3	2	3	3	4	1	7	3	11	6	11	14	117	151	163	184
Traffic Accidents	--	--	3	3	3	3	25	8	16	3	12	5	9	--	3	3	16	7	87	32
All Other Accidents	--	1	3	4	3	--	9	1	9	1	15	2	8	2	9	--	22	20	78	31
Suicide	--	--	--	--	1	--	12	4	12	6	6	1	8	2	8	1	11	3	58	17
Homicide/Legal Intervention	--	--	--	--	--	--	1	--	2	1	3	1	--	1	--	--	1	--	7	3
All Other External Causes	--	--	--	--	1	--	2	--	3	1	--	--	--	--	1	1	1	--	8	2
All Causes of Death	48	42	10	11	19	6	59	20	59	36	73	44	134	81	339	172	2216	1914	2959	2326

Table 5.3
Resident Selected Causes of Death, by County
North Dakota Residents, 1986

County	All Causes	Residual	Malignant Neoplasms	Diabetes	Diseases of the Heart	Cerebro-vascular Disease	Athero-sclerosis	Influenza/ Pneumonia	COPD	Nephritis and Nephrosis	Accidental Deaths	Suicide
Adams	47	8	9	--	23	3	--	2	--	--	1	1
Barnes	151	18	42	4	58	13	1	7	2	2	4	--
Benson	68	18	14	1	22	2	--	2	2	--	6	1
Billings	5	--	2	--	3	--	--	--	--	--	--	--
Bottineau	108	14	24	3	48	8	2	2	1	1	3	2
Bowman	44	5	12	0	10	3	5	3	2	--	3	1
Burke	40	1	10	2	13	3	1	3	3	1	2	1
Burleigh	347	73	82	7	115	21	8	10	10	2	13	6
Cass	567	78	135	14	196	43	16	28	20	7	22	8
Cavalier	91	13	26	--	36	7	1	3	2	1	1	1
Dickey	92	11	23	2	32	5	2	6	4	1	5	1
Divide	32	3	13	--	6	3	--	4	2	1	--	--
Dunn	35	5	7	--	12	2	--	1	3	--	5	--
Eddy	56	5	11	--	22	5	--	10	--	--	2	1
Emmons	59	9	11	2	18	6	2	4	--	--	3	4
Foster	58	8	13	--	20	8	3	1	1	--	3	1
Golden Valley	15	--	5	1	8	1	--	--	--	--	--	--
Grand Forks	397	88	77	10	128	23	7	28	13	2	14	7
Grant	48	11	10	--	17	6	--	1	1	1	1	--
Griggs	48	6	11	--	20	--	1	3	1	3	3	--
Hettinger	44	5	7	2	19	6	2	1	1	--	1	--
Kidder	32	3	12	1	11	2	1	--	--	1	1	--
LaMoure	76	10	18	1	31	7	1	3	1	2	2	--
Logan	27	6	6	--	13	1	--	--	--	--	1	--
McHenry	85	10	21	2	37	3	--	2	2	2	5	1
McIntosh	59	2	23	--	22	3	1	5	--	1	--	2
McKenzie	63	5	10	1	15	3	--	2	3	--	4	--
McLean	100	8	28	1	38	11	--	1	3	2	7	1
Mercer	55	7	15	--	19	5	--	--	4	1	4	--
Morton	192	26	39	2	78	11	1	4	14	3	11	3
Mountrail	78	14	12	1	27	7	5	3	4	1	2	2
Nelson	77	9	19	--	32	10	1	--	2	2	1	1
Oliver	6	1	1	--	4	--	--	--	--	--	--	--
Pembina	111	18	15	1	32	20	5	2	7	7	1	3
Pierce	77	13	14	3	24	9	--	6	2	1	2	3
Ramsey	130	12	33	1	57	10	3	3	5	2	4	--
Ransom	83	11	14	1	33	7	--	6	2	1	6	2
Renville	39	3	7	1	17	5	--	2	2	--	2	--
Richland	156	21	29	2	71	12	1	8	5	4	2	1
Rolette	98	14	18	2	28	8	2	6	10	2	8	--
Sargent	55	4	10	--	29	1	--	2	3	1	4	1
Sheridan	15	1	4	1	7	1	--	--	--	1	--	--
Sioux	36	8	9	2	7	--	--	--	--	1	8	1
Slope	7	2	1	--	3	--	--	--	--	--	--	1
Stark	155	19	38	2	56	13	2	8	6	1	7	3
Steele	22	1	4	--	11	1	1	2	--	--	2	--
Stutsman	192	35	39	3	64	12	11	2	14	4	6	2
Towner	45	3	7	--	22	4	--	7	1	--	--	1
Traill	118	12	24	2	48	11	1	6	5	3	4	2
Walsh	175	28	39	--	65	18	2	7	6	2	6	2
Ward	365	91	93	4	91	25	2	11	16	3	24	5
Wells	73	8	21	1	26	6	--	3	5	--	3	--
Williams	151	22	36	3	38	16	8	6	8	2	9	3
Total	5285	806	1203	86	1882	410	99	226	198	72	228	75